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THE

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ANCIENT EASTERN WORLD;

OR,

THE HISTORY, GEOGRAPHY, AND ANTIQUITIES OF CHALDÆA, ASSYRIA, BABYLON, MEDIA, AND PERSIA,

COLLECTED AND ILLUSTRATED FROM ANCIENT AND MODERN SOURCES.

By GEORGE RAWLINSON, M.A.,

CAMDEN PROFESSOR OF ANCIENT HISTORY IN THE UNIVERSITY OF OXFORD;
LATE FELLOW AND TUTOR OF EXETER COLLEGE.

SECOND EDITION.

IN THREE VOLUMES.—Vol. I.

WITH MAPS AND ILLUSTRATIONS.

LONDON:
JOHN MURRAY, ALBEMARLE STREET.
1871.

LONDON:

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TO MY BROTHER,

HENRY CRESWICKE RAWLINSON, K.C.B., D.C.L.,

&c. &c. &c.,

TO WHOSE GENIUS, LABOURS, AND CONSTANT KINDNESS

I FEEL MYSELF INDEBTED

MORE THAN I CAN EXPRESS,

THIS WORK

IS DEDICATED,

AS A SMALL TOKEN

OF GRATEFUL AND AFFECTIONATE REMEMBRANCE.

468585

PREFACE TO THE SECOND EDITION.

In preparing for the press, after an interval of seven years, a second edition of this work, the author has found it unnecessary to make, excepting in two chapters, any important or extensive alterations. The exceptions are the chapters on the History and Chronology of Chaldæa and Assyria. So much fresh light has been thrown on these two subjects by additional discoveries, made partly by Sir Henry Rawlinson, partly by his assistant, Mr. George Smith, through the laborious study of fragmentary inscriptions now in the British Museum, that many pages of the two chapters in question required to be written afresh, and the Chronological Schemes required, in the one case a complete, and in the other a partial, revision. In making this revision, both of the Chronology and the History, the author has received the most valuable assistance, both from the published papers and from the private communications of Mr. Smith—an assistance for which he desires to make in this place the warmest and most hearty acknowledgment. He is also beholden to a recent Eastern traveller, Mr. A. D. Berrington, for some valuable notes on the physical geography and productions of Mesopotamia, which have been embodied in the accounts given of those subjects. A few corrections have likewise been made of errors pointed out by anonymous critics. Substantially, however, the work continues such as it was on its first appearance, the author having found that time only deepened his conviction of the reality of cuneiform decipherment, and of the authenticity of the history obtained by means of it.

Oxford, November, 1870.

PREFACE TO THE FIRST EDITION.

The history of Antiquity requires from time to time to be re-written. Historical knowledge continually extends, in part from the advance of critical science, which teaches us little by little the true value of ancient authors, but also, and more especially, from the new discoveries which the enterprise of travellers and the patient toil of students are continually bringing to light, whereby the stock of our information as to the condition of the ancient world receives constant augmentation. The extremest scepticism cannot deny that recent researches in Mesopotamia and the adjacent countries have recovered a series of "monuments" belonging to very early times, capable of throwing considerable light on the Antiquities of the nations which produced them. The author of these volumes believes, that, together with these remains, the languages of the ancient nations have been to a large extent recovered, and that a vast mass of written historical matter of a very high value is thereby added to the materials at the Historian's disposal. This is, clearly, not the place where so difficult and complicated a subject can be properly argued. The author is himself content with the judgment of "experts," and believes it would be as difficult to impose a fabricated language on Professor Lassen of Bonn and Professor Max Müller of Oxford, as to palm off a fictitious for a real animal form on Professor Owen of London. The best linguists in Europe have accepted the decipherment of the cuneiform inscriptions as a thing actually accomplished. Until some good linguist, having

carefully examined into the matter, declares himself of a contrary opinion, the author cannot think that any serious doubt rests on the subject.*

The present volumes aim at accomplishing for the Five Nations of which they treat what Movers and Kenrick have accomplished for Phœnicia, or (still more exactly) what Wilkinson has accomplished for Ancient Egypt. Assuming the interpretation of the historical inscriptions as, in general, sufficiently ascertained, and the various ancient remains as assigned on sufficient grounds to certain peoples and epochs, they seek to unite with our previous knowledge of the five nations, whether derived from Biblical or classical sources, the new information obtained from modern discovery. They address themselves in a great measure to the eye; and it is hoped that even those who doubt the certainty of the linguistic discoveries in which the author believes, will admit the advantage of illustrating the life of the ancient peoples by representations of their productions. Unfortunately, the materials of this kind which recent explorations have brought to light are very unequally spread among the several nations of which it is proposed to treat, and, even where they are most copious, fall short of the abundance of Egypt. Still, in every case there is some illustration possible; and in one—Assyria—both the "Arts" and the "Manners" of the people admit of being illustrated very largely from the remains still extant.†

The Author is bound to express his obligations to the following writers, from whose published works he has drawn freely:—MM. Botta and Flandin, Mr. Layard, Mr. James Fergusson,

---

* Some writers allow that the Persian cuneiform inscriptions have been successfully deciphered and interpreted, but appear to doubt the interpretation of the Assyrian records. (See *Edinburgh Review* for July, 1862, Art. III., p. 108.) Are they aware that the Persian inscriptions are accompanied in almost every instance by an Assyrian transcript, and that Assyrian interpretation thus follows upon Persian, without involving any additional "guess-work"?

† See Chapters VI. and VII. of the Second Monarchy.

Mr. Loftus, Mr. Cullimore, and Mr. Birch. He is glad to take this occasion of acknowledging himself also greatly beholden to the constant help of his brother, Sir Henry Rawlinson, and to the liberality of Mr. Vaux, of the British Museum. The latter gentleman kindly placed at his disposal, for the purposes of the present work, the entire series of unpublished drawings made by the artists who accompanied Mr. Loftus in the last Mesopotamian Expedition, besides securing him undisturbed access to the Museum sculptures, thus enabling him to enrich the present volume with a large number of most interesting Illustrations never previously given to the public. In the subjoined list these illustrations are carefully distinguished from such as, in one shape or another, have appeared previously.

Oxford, September, 1862.

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THE FIRST MONARCHY.

CHALDÆA.

CHAPTER I.

GENERAL VIEW OF THE COUNTRY.

"Behold the land of the Chaldæans."—Isaiah xxiii. 13.

The broad belt of desert which traverses the eastern hemisphere, in a general direction from west to east (or, speaking more exactly, of W.S.W. to N.E.E.), reaching from the Atlantic on the one hand nearly to the Yellow Sea on the other, is interrupted about its centre by a strip of rich vegetation, which at once breaks the continuity of the arid region, and serves also to mark the point where the desert changes its character from that of a plain at a low level to that of an elevated plateau or table-land. West of the favoured district, the Arabian and African wastes are seas of sand, seldom raised much above, often sinking below, the level of the ocean; while east of the same, in Persia, Kerman, Seistan, Chinese Tartary, and Mongolia, the desert consists of a series of plateaus, having from 3000 to nearly 10,000 feet of elevation. The green and fertile region, which is thus interposed between the "highland" and the "lowland" deserts,[1] participates, curiously enough, in both characters. Where the belt of sand is intersected by the valley of the Nile, no marked change of elevation occurs; and the continuous low desert is merely interrupted by a few miles of green and cultivable surface, the whole of which is just as smooth and as flat as the waste on either side of it. But it is

[1] Humboldt, *Aspects of Nature*, vol. i. pp. 77, 78, E. T.

otherwise at the more eastern interruption. There the verdant and productive country divides itself into two tracts, running parallel to each other, of which the western presents features not unlike those that characterise the Nile valley, but on a far larger scale; while the eastern is a lofty mountain-region, consisting for the most part of five or six parallel ranges, and mounting in many places far above the level of perpetual snow.

It is with the western or plain tract that we are here concerned. Between the outer limits of the Syro-Arabian desert and the foot of the great mountain-range of Kurdistan and Luristan intervenes a territory long famous in the world's history, and the chief site of three out of the five empires of whose history, geography, and antiquities it is proposed to treat in the present volumes. Known to the Jews as Aram-Naharaim, or "Syria of the two rivers;" to the Greeks and Romans as Mesopotamia, or "the between-river country;" to the Arabs as Al-Jezireh, or "the island," this district has always[2] taken its name from the streams, which constitute its most striking feature, and to which, in fact, it owes its existence. If it were not for the two great rivers—the Tigris and Euphrates—with their tributaries, the more northern part of the Mesopotamian lowland would in no respect differ from the Syro-Arabian desert on which it adjoins, and which in latitude, elevation, and general geological character, it exactly resembles. Towards the south, the importance of the rivers is still greater; for of Lower Mesopotamia it may be said, with more truth than of Egypt,[3] that it is "an acquired land," the actual "gift" of the two streams which wash it on either side; being, as it is, entirely a recent formation—a deposit which the streams have

[2] Even the title of Shinar, the earliest known name of the region (Gen. xi. 2), may be no exception; for it is perhaps derived from the Hebrew שְׁנַי, "two," and *ar* or *nahr* (Heb. נָהָר), "a river." The form *ar* belongs to the early Scythic or Cushite Babylonian, and is found in the Ar-malchar of Pliny (*H. N.* vi. 26), and the Armacales of Abydenus—terms used to designate the *Nahr-malcha* (Royal River) of other authors. (See the *Fragmenta Historicorum Græcorum*, vol. iv. pp. 283, 284.)

[3] Herodotus, ii. 5. Sir Gardner Wilkinson observes that Herodotus is mistaken in this instance. The Nile never emptied itself into a gulf, but from the first laid its deposits on ground already raised above the level of the Mediterranean. (See the author's *Herodotus*, vol. ii. p. 6, note [4].)

made in the shallow waters of a gulf into which they have flowed for many ages.[4]

The division, which has here forced itself upon our notice, between the Upper and the Lower Mesopotamian country, is one very necessary to engage our attention in connexion with the ancient Chaldæa. There is no reason to think that the term Chaldæa had at any time the extensive signification of Mesopotamia, much less that it applied to the entire flat country between the desert and the mountains. Chaldæa was not the whole, but a part, of the great Mesopotamian plain; which was ample enough to contain within it three or four considerable monarchies. According to the combined testimony of geographers and historians,[5] Chaldæa lay towards the south, for it bordered upon the Persian Gulf; and towards the west, for it adjoined Arabia. If we are called upon to fix more accurately its boundaries, which, like those of most countries without strong natural frontiers, suffered many fluctuations, we are perhaps entitled to say that the Persian Gulf on the south, the Tigris on the east, the Arabian desert on the west, and the limit between Upper and Lower Mesopotamia on the north, formed the natural bounds, which were never greatly exceeded and never much infringed upon. These boundaries are for the most part tolerably clear, though the northern only is invariable. Natural causes, hereafter to be mentioned more particularly,[6] are perpetually varying the course of the Tigris, the shore of the Persian Gulf, and the line of demarcation between the sands of Arabia and the verdure of the Euphrates valley. But nature has set a permanent mark, half way down the Mesopotamian lowland, by a difference of geological structure, which is very conspicuous. Near Hit on the Euphrates, and a little below Samarah on the Tigris,[7] the traveller who descends the

[4] Loftus's *Chaldæa and Susiana*, p. 282.

[5] See Strabo, xvi. 1, § 6; Pliny, *H. N.* vi. 28; Ptolemy, v. 20; Beros. ap. Syncell. pp. 28, 29.

[6] See below, pp. 13, 14, &c.

[7] Ross came to the end of the alluvium and the commencement of the secondary formations in lat. 34°, long. 44°. (*Journal of Geographical Society*, vol. ix. p. 446.) Similarly Captain Lynch found the bed of the Tigris change from pebbles to mere alluvium near Khan Tholiyeh, a little above its confluence with the Adhem. (Ib. p. 472.) For the point where the Euphrates enters on the alluvium, see Fraser's *Assyria and Mesopotamia*, p. 27.

streams, bids adieu to a somewhat waving and slightly elevated plain of secondary formation, and enters on the dead flat and low level of the mere alluvium. The line thus formed is marked and invariable; it constitutes the only natural division between the upper and lower portions of the valley; and both probability and history point to it as the actual boundary between Chaldæa and her northern neighbour.

The extent of ancient Chaldæa is, even after we have fixed its boundaries, a question of some difficulty. From the edge of the alluvium a little below Hit, to the present coast of the Persian Gulf at the mouth of the Shat-el-Arab, is a distance of above 430 miles; while from the western shore of the Bahr-i-Nedjif to the Tigris at Serut is a direct distance of 185 miles. The present area of the alluvium west of the Tigris and the Shat-el-Arab may be estimated at about 30,000 square miles. But the extent of ancient Chaldæa can scarcely have been so great. It is certain that the alluvium at the head of the Persian Gulf now grows with extraordinary rapidity, and not improbable that the growth may in ancient times have been even more rapid than it is at present. Accurate observations have shown that the present rate of increase amounts to as much as a mile each seventy years,[8] while it is the opinion of those best qualified to judge that the *average* progress during the historic period has been as much as a mile in every thirty years![9] Traces of post-tertiary deposits have been found as far up the country as Tel Ede and Hammam,[10] or more than 200 miles from the embouchure of the Shat-el-Arab; and there is ample reason for believing that, at the time when the first Chaldæan monarchy was established, the Persian Gulf reached inland, 120 or 130 miles further than at present. We must

[8] Loftus, *Chaldæa and Susiana*, p. 282.

[9] Sir H. Rawlinson, in the *Journal of the Geographical Society*, vol. xxvii. p. 186. The increase did not escape the notice of the ancients. It is mentioned and exaggerated by Pliny, who says that Charax of Spasinus was originally built by Alexander the Great at the distance of little more than a mile from the shore, but that in the time of Juba the Mauritanian it was 50 miles from the sea, and in his own day 120 miles! (*Hist. Nat.* vi. 27.) This would give for the first period a rate of increase exceeding a mile in seven years, and for the second a rate of about a mile a year; or for the whole period, a rate of a mile in $3\frac{1}{2}$ years.

[10] Loftus, in *Journal of the Geographical Society*, vol. xxvi. p. 146.

deduct therefore from the estimate of extent grounded upon the existing state of things, a tract of land 130 miles long and some 60 or 70 broad, which has been gained from the sea in the course of about forty centuries. This deduction will reduce Chaldæa to a kingdom of somewhat narrow limits; for it will contain no more than about 23,000 square miles. This, it is true, exceeds the area of all ancient Greece, including Thessaly, Acarnania, and the islands;[1] it nearly equals that of the Low Countries, to which Chaldæa presents some analogy; it is almost exactly that of the modern kingdom of Denmark; but it is less than Scotland, or Ireland, or Portugal, or Bavaria; it is more than doubled by England, more than quadrupled by Prussia, and more than octupled by Spain, France, and European Turkey. Certainly, therefore, it was not in consequence of its size that Chaldæa became so important a country in the early ages, but rather in consequence of certain advantages of soil, climate, and position, which will be considered in the next chapter.

It has been already noticed that in the ancient Chaldæa, the chief—almost the sole—geographical features, were the rivers.[2] Nothing is more remarkable even now than the *featureless* character of the region, although in the course of ages it has received from man some interruptions of the original uniformity. On all sides a dead level extends itself, broken only by single solitary mounds, the remains of ancient temples or cities, by long lines of slightly elevated embankment marking the course of canals, ancient or recent, and towards the south by a few sand-hills. The only further variety is that of colour; for while the banks of the streams, the marsh-grounds, and the country for a short distance on each side of the canals in actual operation, present to the eye a pleasing, and in some cases a luxuriant verdure; the rest, except in early spring, is parched and arid, having little to distinguish it from the most desolate districts of Arabia. Anciently, except for this difference, the

[1] See Clinton's *Fasti Hellenici*, vol. ii. p. 473, where the whole area of European Greece, including Thessaly, Acarnania, Ætolia, Eubœa, and the other littoral islands, is shown to be 22,231 miles.

[2] See above, p. 2.

tract must have possessed all the wearisome uniformity of the steppe region; the level horizon must have shown itself on all sides unbroken by a single irregularity; all places must have appeared alike, and the traveller can scarcely have perceived his progress, or have known whither or how to direct his steps. The rivers alone, with their broad sweeps and bold reaches, their periodical changes of swell and fall, their strength, motion, and life-giving power, can have been objects of thought and interest to the first inhabitants; and it is still to these that the modern must turn who wishes to represent, to himself or others, the general aspect and chief geographical divisions of the country.

The Tigris and Euphrates rise from opposite sides of the same mountain-chain. This is the ancient range of Niphates (a prolongation of Taurus), the loftiest of the many parallel ridges which intervene between the Euxine and the Mesopotamian plain, and the only one which transcends in many places the limits of perpetual snow. Hence its ancient appellation, and hence its power to sustain unfailingly the two magnificent streams which flow from it. The line of the Niphates is from east to west, with a very slight deflection to the south of west; and the streams thrown off from its opposite flanks, run at first in valleys parallel to the chain itself, but in opposite directions, the Euphrates flowing westward from its source near Ararat to Malatiyeh, while the Tigris from Diarbekr "goes eastward to Assyria."[3] The rivers thus appear as if never about to meet; but at Malatiyeh the course of the Euphrates is changed. Sweeping suddenly to the south-east, this stream passes within a few miles of the source of the Tigris below Lake Göljik, and forces a way through the mountains towards the south, pursuing a tortuous course, but still seeming as if it intended ultimately to mingle its waters with those of the Mediterranean.[4] It is not till about Balis, in lat. 36°, that this intention appears to be finally relinquished, and the convergence of the two streams begins. The Euphrates at first flows nearly due east, but soon

[3] Gen. ii. 14, marginal rendering.

[4] See the remark of Mela:—"Occidentem petit, ni Taurus obstet, in nostra maria venturus." (*De Sit. Orb.* iii. 8.)

takes a course which is, with few and unimportant deflections, about south-east, as far as Suk-es-Sheioukh, after which it runs a little north of east to Kurnah. The Tigris from Til to Mosul pursues also a south-easterly course, and draws but a very little nearer to the Euphrates. From Mosul, however, to Samarah, its course is only a point east of south; and though, after that, for some miles it flows off to the east, yet resuming, a little below the thirty-fourth parallel, its southerly direction, it is brought about Baghdad within twenty miles of the sister stream. From this point there is again a divergence. The course of the Euphrates, which from Hit to the mounds of Mohammed (long. 44°), had been E.S.E., becomes much more southerly, while that of the Tigris—which, as we have seen, was for a while due south—becomes once more only slightly south of east,[5] till near Serut, where the distance between the rivers has increased from twenty to a hundred miles. After passing respectively Serut and El Khitr, the two streams converge rapidly. The flow of the Euphrates is at first E.S.E., and then a little north of east to Kurnah, while that of the Tigris is S.S.E. to the same point. The lines of the streams in this last portion of their course, together with that which may be drawn across from stream to stream, form nearly an equilateral triangle, the distances being respectively 104, 110, and 115 miles.[6] So rapid is the final convergence of the two great rivers.

The Tigris and Euphrates are both streams of the first order. The estimated length of the former, including main windings, is 1146 miles; that of the latter is 1780 miles.[7] Like most rivers that have their sources in high mountain regions, they are strong from the first, and, receiving in their early course a vast number of important tributaries, become broad and deep streams before they issue upon the plains. The Euphrates is navigable from Sumeïsat (the ancient Samosata), 1200 miles

[5] In one part of its course, viz. from Kut-el-Amarah at the mouth of the Shat-el-Hie to Hussun Khan's fort, 50 miles lower down the stream, the direction of the Tigris is even north of east.

[6] From El Khitr to Serut the direct distance is 104 miles, from Serut to Kurnah 110, and from Kurnah to El Khitr 115.

[7] Chesney, *Euphrates Expedition*, vol. i. pp. 38 and 40.

above its embouchure; and even 180 miles higher up, is a river "of imposing appearance," 120 yards wide and very deep.[8] The Tigris is often 250 yards wide at Diarbekr,[9] which is not a hundred miles from its source, and is navigable in the flood time from the bridge of Diarbekr to Mosul,[10] from which place it is descended at all seasons to Baghdad, and thence to the sea.[1] Its average width below Mosul is 200 yards, with a depth which allows the ascent of light steamers, unless when there is an artificial obstruction.[2] Above Mosul the width rarely exceeds 150 yards, and the depth is not more in places than three or four feet. The Euphrates is 250 yards wide at Balbi, and averages 350 yards from its junction with the Khabour to Hit; its depth is commonly from fifteen to twenty feet.[3] Small steamers have descended its entire course from Bir to the sea. The volume of the Euphrates in places is, however, somewhat less than that of the Tigris, which is a swifter and in its latter course a deeper stream. It has been calculated that the quantity of water discharged every second by the Tigris at Baghdad is 164,103 cubic feet, while that discharged by the Euphrates at Hit is 72,804 feet.[4]

The Tigris and Euphrates are very differently circumstanced with respect to tributaries. So long as it runs among the Armenian mountains, the Euphrates has indeed no lack of affluents; but these, except the Kara Su, or northern Euphrates, are streams of no great volume, being chiefly mountain-torrents which collect the drainage of very limited basins. After it leaves the mountains and enters upon the low country at Sumeïsat, the affluents almost entirely cease; one, the river of Sajur, is received from the right, in about lat. 36° 40′; and two

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[8] Chesney, *Euphrates Expedition*, vol. i. p. 44.

[9] Ibid. p. 15. It only attains this width, however, in the season of the floods. Generally it is at Diarbekr about 100 or 120 yards wide.

[10] Loftus, *Chaldæa and Susiana*, p. 3.

[1] Chesney, *Euphrates Expedition*, vol. i. p. 32; compare Layard, *Nineveh and its Remains*, vol. ii. ch. xiii. p. 92.

[2] The 'Euphrates' steamer, under Lieutenant Lynch, ascended the Tigris nearly to Nimrud in 1838; but was stopped by an artificial bund or dam thrown across the stream near that place. (Chesney, vol. i. p. 32.) The 'Nitocris' in 1846 attempted the ascent, but was unable to proceed far above Tekrit, from a want of sufficient power. (*Nineveh and its Remains*, vol. i. ch. v. p. 139.)

[3] Chesney, vol. i. pp. 53-57.

[4] Ibid. p. 62.

of more importance flow in from the left—the Belik (ancient Bilichus), which joins it in long. 39° 9′; and the Khabour (ancient Habor or Chaboras), which effects a junction in long. 40° 30′, lat. 35° 7′. The Belik and Khabour collect the waters which flow from the southern flank of the mountain range above Orfa, Mardin, and Nisibin, best known as the "Mons Masius" of Strabo.[5] They are not, however, streams of equal importance. The Belik has a course which is nearly straight, and does not much exceed 120 miles. The Khabour, on the contrary, is sufficiently sinuous, and its course may be reckoned at fully 200 miles. It is navigable by rafts from the junction of its two main branches near the volcanic cone of Koukab,[6] and adds a considerable body of water to the Euphrates. Below its confluence with this stream, or during the last 800 miles of its course, the Euphrates does not receive a single tributary. On the contrary, it soon begins to give off its waters right and left, throwing out branches, which either terminate in marshes, or else empty themselves into the Tigris. After a while, indeed, it receives compensation, by means of the Shat-el-Hie and other branch streams, which bring back to it from the Tigris, between Mugheir and Kurnah, the greater portion of the borrowed fluid. The Tigris, on the contrary, is largely enriched throughout the whole of its course by the waters of tributary streams. It is formed originally of three main branches: the Diarbekr stream, or true Tigris, the Myafarekin River, and the Bitlis Chai, or Centrites of Xenophon,[7] which carries a greater body than either of the other two.[8] From its entry on the low country near Jezireh to the termination of its course at Kurnah, it is continually receiving from the left a series of most important additions. The chain of Zagros, which, running parallel to the two main streams, shuts in the Mesopotamian plain upon the east, abounds with springs, which

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[5] Strab. xi. 12, § 4; 14, § 2, &c.

[6] Layard, *Nineveh and Babylon*, ch. xv. p. 322. Compare ch. xi. pp. 269, 270.

[7] Xenophon, *Anabasis*, iv. 3, § 1.

[8] Layard, *Nineveh and Babylon*, ch. iii. p. 49. The Bitlis Chai at Til, just above the point of confluence, was found by Mr. Layard to be "about equal in size" to the united Myafarekin and Diarbekr rivers.

are well supplied during the whole summer from its snows,[9] and these when collected form rivers of large size and most refreshing coolness. The principal are, the eastern Khabour, which joins the Tigris in lat. 37° 12′; the Upper Zab, which falls in by the ruins of Nimrud; the Lower Zab, which joins some way below Kileh Sherghat; the Adhem, which unites its waters half way between Samarah and Baghdad; and the Diyaleh (ancient Gyndes), which is received between Baghdad and the ruins of Ctesiphon.

By the influx of these streams the Tigris continues to grow in depth and strength as it nears the sea, and becomes at last (as we have seen) a greater river than the Euphrates, which shrinks during the latter part of its course, and is reduced to a volume very inferior to that which it once boasted. The Euphrates at its junction with the Khabour, 700 miles above Kurnah, is 400 yards wide and 18 feet deep; at Irzah or Werdi, 75 miles lower down, it is 350 yards wide and of the same depth; at Hadiseh, 140 miles below Werdi, it is 300 yards wide, and still of the same depth; at Hit, 50 miles below Hadiseh, its width has increased to 350 yards, but its depth has diminished to 16 feet; at Felujiah, 75 miles from Hit, the depth is 20 feet, but the width has diminished to 250 yards. From this point the contraction is very rapid and striking. The Saklawiyeh canal is given out upon the left, and some way further down the Hindiyeh branches off upon the right, each carrying, when the Euphrates is full, a large body of water. The consequence is that at Hillah, 90 miles below Felujiah, the stream is no more than 200 yards wide and 15 feet deep; at Diwaniyeh, 65 miles further down, it is only 160 yards wide; and at Lamlun, 20 miles below Diwaniyeh, it is reduced to 120 yards wide, with a depth of no more than 12 feet! Soon after, however, it begins to recover itself. The water, which left it by the Hindiyeh, returns to it upon the one side, while the Shat-el-Hie and numerous other branch streams from the Tigris flow in upon the other; but still the Euphrates never recovers itself entirely,

[9] Loftus, *Chaldæa and Susiana*, p. 308; *Journal of Geograph. Society*, vol. ix. p. 95.

nor even approaches in its later course to the standard of its earlier greatness. The channel from Kurnah to El Khitr was found by Colonel Chesney to have an average width of only 200 yards, and a depth of about 18 or 19 feet,[10] which implies a body of water far inferior to that carried between the junction with the Khabour and Hit. More recently, the decline of the stream in its later course has been found to be even greater. Neglect of the banks has allowed the river to spread itself more and more widely over the land; and it is said that, except in the flood time, very little of the Euphrates water reaches the sea.[1] Nor is this an unprecedented or very unusual state of things. From the circumstance (probably) that it has been formed by the deposits of streams flowing from the east as well as from the north, the lower Mesopotamian plain slopes not only to the south, but to the west.[2] The Euphrates, which has low banks, is hence at all times inclined to leave its bed, and to flow off to the right,[3] where large tracts are below its ordinary level. Over these it spreads itself, forming the well-known "Chaldæan marshes,"[4] which absorb the chief portion of the water that flows into them, and in which the "great river" seems at various times to have wholly, or almost wholly, lost itself.[5] No such misfortune can befall the Tigris, which runs in a deep bed, and seldom varies its channel, offering a strong contrast to the sister stream.[6]

Frequent allusion has been made, in the course of this description of the Tigris and Euphrates, to the fact of their having each a flood season. Herodotus is scarcely correct when he says, that in Babylonia "the river does not, as in Egypt, overflow the

[10] *Euphrates Expedition*, vol. i. pp. 59, 60.

[1] Layard, *Nineveh and Babylon*, ch. xxi. p. 475; Loftus, *Chaldæa and Susiana*, p. 45.

[2] Heeren's statement, which is directly the reverse of this (*Asiatic Nations*, vol. ii. p. 131, E. T.), is at once false and self-contradictory. The "deep bed" and "bold shores" of the Tigris are the consequence of the *higher* level of the plain in its vicinity. The fall of the Tigris is much greater than that of the Euphrates in its lower course, and the stream cuts deeper into the alluvium, on the principle of water finding its own level.

[3] Loftus, p. 44.

[4] Arrian, *Exped. Alex.* vii. 21, 22; Strab. xvi. 1, §§ 11, 12. The "lacus Chaldaici" of Pliny (*Hist. Nat.* vi. 27) refer rather to the marshes on the Lower Tigris. (See the next page.)

[5] Arrian, *Exped. Alex.* vii. 7; Plin. *Hist. Nat.* l. s. c.

[6] Arrian, vii. 21.

corn-lands of its own accord, but is spread over them by the help of engines."[7] Both the Tigris and the Euphrates rise many feet each spring, and overflow their banks in various places. The rise is caused by the melting of the snows in the mountain regions from which the two rivers and their affluents spring. As the Tigris drains the southern, and the Euphrates the northern side of the same mountain range, the flood of the former stream is earlier and briefer than that of the latter. The Tigris commonly begins to rise early in March, and reaches its greatest height in the first or second week of May, after which it rapidly declines, and returns to its natural level by the middle of June. The Euphrates first swells about the middle of March, and is not in full flood till quite the end of May or the beginning of June; it then continues high for above a month, and does not sink much till the middle of July, after which it gradually falls till September. The country inundated by the Tigris is chiefly that on its lower course, between the 32nd and 31st parallels, the territory of the Beni Lam Arabs. The territory which the Euphrates floods is far more extensive. As high up as its junction with the Khabour, that stream is described as, in the month of April, "spreading over the surrounding country like a sea."[8] From Hit downwards it inundates both its banks, more especially the country above Baghdad (to which it is carried by the Saklawiyeh canal), the tract west of the Birs Nimrud and extending thence by way of Nedjif to Samava, and the territory of the Affej Arabs, between the rivers, above and below the 32nd parallel. Its flood is, however, very irregular, owing to the nature of its banks, and the general inclination of the plain, whereof mention was made above.[9] If care is taken, the inundation may be pretty equally distributed on either side of the stream; but if the river banks are neglected, it is sure to flow mainly to the west, rendering the whole country on that side the river a swamp, and leaving the territory on the left bank almost without water. This state of things may be traced historically from the age of Alexander to

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[7] Herod. i. 193. [8] Layard, *Nineveh and Babylon*, p. 297. [9] See page 11.

the present day, and has probably prevailed more or less since the time when Chaldæa received its first inhabitants.

The floods of the Tigris and Euphrates combine with the ordinary action of their streams upon their banks to produce a constant variation in their courses, which in a long period of time might amount to something very considerable. It is impossible to say, with respect to any portion of the alluvial plain, that it may not at some former period have been the bed of one or the other river. Still it would seem that, on the whole, a law of compensation prevails, with the result that the general position of the streams in the valley is not very different now from what it was 4000 years ago. Certainly between the present condition of things and that in the time of Alexander, or even of Herodotus, no great difference can be pointed out, except in the region immediately adjoining on the gulf, where the alluvium has grown, and the streams, which were formerly separate, have united their waters. The Euphrates still flows by Hit (Is) and through Babylon;[10] the Tigris passes near Opis,[1] and at Baghdad runs at the foot of an embankment made to confine it by Nebuchadnezzar.[2] The changes traceable are less in the main courses than in the branch streams, which perpetually vary, being sometimes left dry within a few years of the time that they have been navigable channels.[3]

The most important variations of this kind are on the side of Arabia. Here the desert is always ready to encroach; and the limits of Chaldæa itself depend upon the distance from the main river, to which some branch stream conveys the Euphrates water. In the most flourishing times of the country, a wide and deep channel, branching off near Hit, at the very commencement of the alluvium, has skirted the Arabian rock and gravel for a distance of several hundred miles, and has entered the

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[10] Herod. i. 179, 180.

[1] Ibid. i. 189; Xen. *Anab.* ii. 4, § 25. The site of Opis is probably marked by the ruins at *Khafaji*. (See the remarks of Sir H. Rawlinson in the author's *Herodotus*, vol. i. p. 326, note [8].)

[2] Sir H. Rawlinson, *Commentary on the Cuneiform Inscriptions of Assyria and Babylonia*, p. 77, note.

[3] Loftus, *Chaldæa and Susiana*, p. 112. Some rather considerable changes in the bed of the Tigris are thought to be traceable a little below Samarah. (See *Journal of Geographical Society*, vol. ix. p. 472.)

Persian Gulf by a mouth of its own.[4] In this way the extent of Chaldæa has been at times largely increased, a vast tract being rendered cultivable, which is otherwise either swamp or desert.

Such are the chief points of interest connected with the two great Mesopotamian rivers. These form, as has been already observed, the only marked and striking characteristics of the country, which, except for them, and for one further feature, which now requires notice, would be absolutely unvaried and uniform. On the Arabian side of the Euphrates, 50 miles south of the ruins of Babylon, and 25 or 30 miles from the river, is a fresh-water lake of very considerable dimensions—the Bahr-i-Nedjif, the "Assyrium stagnum" of Justin.[5] This is a natural basin, 40 miles long, and from 10 to 20 miles broad, enclosed on three sides by sandstone cliffs, varying from 20 to 200 feet in height, and shut in on the fourth side—the north-east—by a rocky ridge, which intervenes between the valley of the Euphrates and this inland sea. The cliffs are water-worn, presenting distinct indications of more than one level at which the water has rested in former times.[6] At the season of the inundation this lake is liable to be confounded with the extensive floods and marshes, which extend continuously from the country west of the Birs Nimrud to Samava. But at other times the distinction between the Bahr and the marshes is very evident, the former remaining when the latter disappear altogether, and not diminishing very greatly in size even in the driest season. The water of the lake is fresh and sweet, so long as it communicates with the Euphrates; when the communication is cut off it becomes very unpalatable, and those who dwell in the vicinity are no longer able to drink it. This result is attributed to the connexion of the lake with rocks of the gypsiferous series.[7]

It is obvious that the only natural divisions of Chaldæa proper are those made by the river-courses. The principal tract must

[4] Shapur Dholactuf, in the fourth century of our era, either cut or re-opened this canal. He is said to have intended it as a defence against the Arabs. In Arabian geography it is known as *Khandak Sabur*, or "Shapur's ditch." The present name is *Kerrch Saideh*.

[5] Justin, xviii. 3, § 2.

[6] Loftus, p. 50.

[7] Ibid., l. s. c.

always have been that which intervenes between the two streams. This was anciently a district some 300 miles in length, varying from 20 to 100 miles in breadth, and perhaps averaging 50 miles, which must thus have contained an area of about 15,000 square miles. The tract between the Euphrates and Arabia was at all times smaller than this, and in the most flourishing period of Chaldæa must have fallen short of 10,000 square miles.

We have no evidence that the natural division of Chaldæa here indicated was ever employed in ancient times for political purposes. The division which appears to have been so employed was one into northern and southern Chaldæa, the first extending from Hit to a little below Babylon, the second from Niffer to the shores of the Persian Gulf. In each of these districts we have a sort of tetrarchy, or special pre-eminence of four cities, such as appears to be indicated by the words—"The beginning of his kingdom was Babel, and Erech, and Accad, and Calneh, in the land of Shinar."[8] The southern tetrarchy is composed of the four cities, Ur or Hur, Huruk, Nipur, and Larsa or Larancha, which are probably identified with the Scriptural "Ur of the Chaldees," Erech, Calneh, and Ellasar.[9] The northern consists of Babel or Babylon, Borsippa, Cutha, and Sippara, of which all except Borsippa are mentioned in Scripture.[10] Besides these cities the country contained many others, as Chilmad, Dur-Kurri-galzu, Ihi or Ahava, Rubesi, Duran, Tel-Humba, &c. It is not possible at present to locate with accuracy all these places. We may, however, in the more important instances, fix either certainly, or with a very high degree of probability, their position.

Hur or Ur, the most important of the early capitals, was

[8] Gen. x. 10. The sacred historian perhaps further represents the Assyrians as adopting the Babylonian number on their emigration to the more northern regions:—"Out of that land went forth Asshur, and builded Nineveh, and the city Rehoboth, and Calah, and Resen." (Gen. x. 11, 12.)

[9] In three out of these four cases, the similarity of the name forms a sufficient ground for the identification. In the fourth case the chief ground of identification is a statement in the Talmud that Nopher was the site of the Calneh of Nimrod.

[10] Sippara is the Scriptural Sepharvaim. The Hebrew term has a dual ending, because there were two Sipparas, one on either side of the river.

situated on the Euphrates, probably at no great distance from its mouth. It was probably the chief commercial emporium in the early times; as in the bilingual vocabularies its ships are mentioned in connexion with those of Ethiopia.[1] The name is found to have attached to the extensive ruins (now about six miles from the river, on its right bank, and nearly opposite its junction with the Shat-el-Hie) which are known by the name of Mugheir, or "the bitumened."[2] Here, on a dead flat, broken only by a few sand-hills, are traces of a considerable town, consisting chiefly of a series of low mounds, disposed in an oval shape, the largest diameter of which runs from north to south, and measures somewhat more than half a mile. The chief building is a temple, hereafter to be more particularly described, which is a very conspicuous object even at a considerable distance, its greatest height above the plain being about seventy feet.[3] It is built in a very rude fashion, of large bricks, cemented with bitumen, whence the name by which the Arabs designate the ruins.

About thirty miles from Hur, in a north-westerly direction, and on the other side of the Euphrates, from which it is distant eight or nine miles, are the ruins of a town, called in the inscriptions Larrak, or Larsa, in which some of the best Orientalists have recognised at once the Biblical Ellasar,[4] the Laranchæ of Berosus,[5] and the Larissa of Apollodorus, where the king held his court who sent Memnon to the siege of Troy.[6] The identification is perhaps doubtful; but, at any rate, we have here the remains of a second Chaldæan capital, dating from the very earliest times. The ruins, which bear now the name of Senkereh or Sinkara, consist of a low circular platform, about four and a half miles in circumference, rising gradually from the level of the plain to a central mound, the highest point of which attains an elevation of seventy feet above the plain itself, and is

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[1] Sir H. Rawlinson, in the *Journal of the Geographical Society*, vol. xxvii. p. 185.

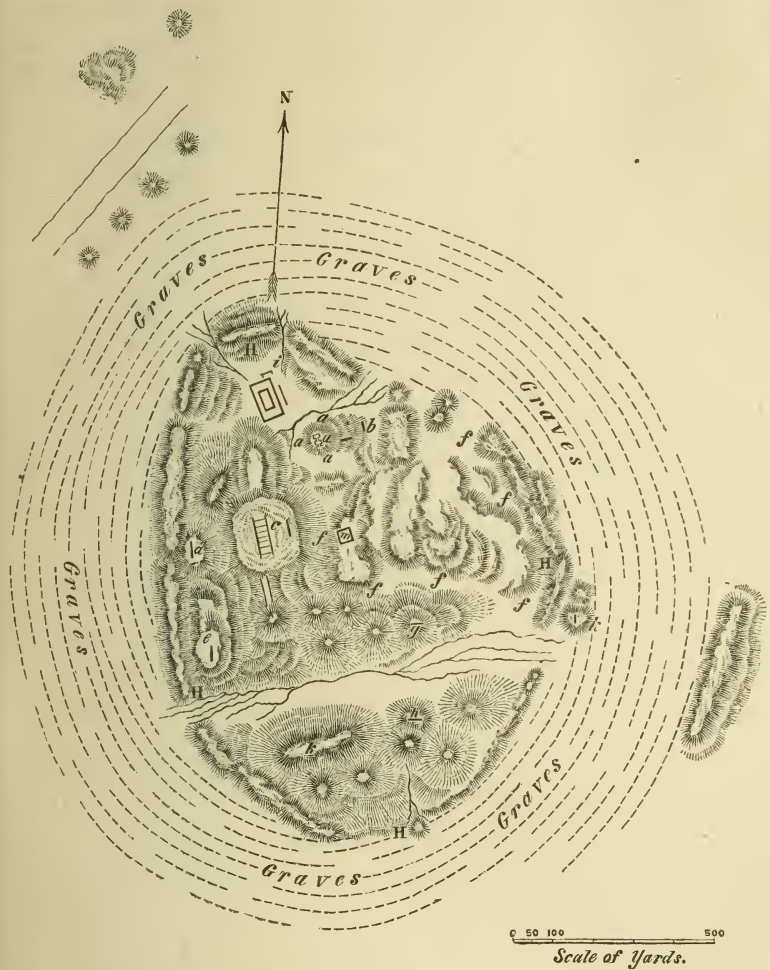
[2] Mr. Taylor, in the *Journal of the Asiatic Society*, vol. xv. p. 260. Sir H. Rawlinson prefers the derivation of *Um-qir*, "the mother of bitumen."

[3] Loftus, *Chaldæa and Susiana*, p. 128.

[4] Gen. xiv. 1.

[5] Beros. ap. Syncell., *Chronographia*, p. 39.

[6] Apollod. *Bibliotheca*, ii. 4, § 4.



Plan of Mugheir Ruins.

H H H H. 2946 yards round.
a a a. Platform on which the house *á* is built.
á. House cleared.
b. Pavement at edge of platform *a*, 12 feet below surface.
c. Tomb mound.
d e g h k l m. Points at which excavations were made by Mr. Loftus.
f f f f. Comparatively open space of very low mounds.

distinctly visible from a distance of fifteen miles.[7] The material used consists of the ordinary sun-dried and baked bricks; and the basement platforms bear the inscriptions of the same king who appears to have been the original founder of the chief buildings at Ur or Mugheir.

Fifteen miles from Larsa, in a direction a little north of west, and on the same side of the river, are ruins considerably more extensive than those of either Ur or Larsa, to which the natives apply the name of Warka, which is no doubt a corruption of the original appellation. The Erech, or Orech,[8] of the Hebrews, which appears as Huruk in the cuneiform geographical lists, became known to the Greeks as Orchoë;[9] and this appellation, probably continuing in use to the time of the Arab conquest, was then corrupted into Urka or Warka, in which shape the name given by Nimrod still attaches to the second of his cities. The ruins stand in lat. 31° 19′, long. 45° 40′, about four miles from the nearest bend of the Euphrates, on its left or east bank. They form an irregular circle, nearly six miles in circumference, which is defined by the traces of an earthen rampart, in some places forty feet high. A vast mass of undulating mounds, intersected by innumerable channels and ravines, extends almost entirely across the circular space, in a direction, which is nearly north and south, abutting at either end upon the rampart. East and west of this mass is a comparatively open space, where the mounds are scattered and infrequent; while outside the rampart are not only a number of detached hillocks marking the site of ancient buildings, but in one direction—towards the east—the city may be traced continuously by means of ruined edifices, mounds, and pottery, fully three miles beyond the rampart into the desert. The greatest height of the ruins is about 100 feet; their construction is very rude and primitive, the date of some buildings being evidently as early as that of the most ancient structures of either Mugheir or Senkereh.[10]

Sixty miles to the north-west of these ruins, still on the left

[7] Loftus, p. 244.

[8] The LXX translators express the Hebrew אֶרֶךְ by Ὀρέχ.

[9] Strab. xvi. 1, § 6; Ptol. v. 20, p. 137. See also Pliny, *Hist. Nat.* vi. 27.

[10] Loftus, pp. 162-170.

or eastern bank of the Euphrates, but at the distance of thirty miles from its present course, are the remains of another

Ruins of Warka (Erech).

A. Bowariyeh.
B. Wuswas.
C. Parthian ruin.
D. Edifice of cones.

city, the only Chaldæan ruins which can dispute, with those already described, the palm of antiquity. They consist of a number of separate and distinct heaps, which seem to be

the remains of different buildings, and are divided into two nearly equal groups by a deep ravine or channel 120 feet wide, apparently the dry bed of a river which once ran through the town.[1] Conspicuous among the other hillocks is a conical heap, occupying a central position on the eastern side of the river-bed, and rising to the height of about seventy feet above the general level of the plain.[2] Further on in this direction is a low continuous mound, which seems to be a portion of the outer wall of the city. The ruins are of considerable extent, but scarcely so large as those at either Senkereh or Warka. The name which now attaches to them is Niffer; and it appears, from the inscriptions at the place, that the ancient Semitic appellation was but slightly different.[3] This name, as read on the bilingual tablets, was Nipur; and as there can be little doubt that it is this word which appears in the Talmud as Nopher,[4] we are perhaps entitled, on the authority of that treasure-house of Hebrew traditions, to identify these ruins with the Calneh of Moses,[5] and the Calno of Isaiah.[6]

About sixty-five miles from Niffer, on the opposite side of the Euphrates, and in a direction only slightly north of west, are the remains of the ancient Borsippa. These consist of little more than the ruins of a single building—the great temple of Merodach—which was entirely rebuilt by Nebuchadnezzar. They have been sometimes regarded as really a portion of the ancient Babylon;[7] but this view is wholly incompatible with the cuneiform records, which distinctly assign to the ruins in question the name of Borsip or Borsippa, a place known with

[1] Layard, *Nineveh and Babylon*, ch. xxiv. p. 551. Boats smeared with bitumen, and similar to those still in use in Lower Mesopotamia, are said to be occasionally found, beneath the soil, in this ravine.

[2] Loftus, p. 101.

[3] In the early Scythic or Cushite Babylonian the name of the city is represented by the same characters as are used for the god Belus, though of course with a different determinative; and it thus seems highly probable that we have the vernacular pronunciation of the name in the Βίλβη of Ptolemy, which he joins with Βάρσιτα and Διγούα, precisely as in the inscriptions are joined Borsip, Nipur, and Cutha or Tiggaba. *Nipur* is given in the bilingual tablets as the Semitic translation of the Scythic *Bilu*.

[4] See above, page 15, note [9].

[5] Gen. x. 10. [6] Isaiah x. 9.

[7] Rich, *Second Memoir on Babylon*, p. 32; Heeren, *Asiatic Nations*, vol. ii. p. 172; Ker Porter, *Travels*, vol. ii. p. 379. See also Oppert's map, entitled "Babylon Antiqua," in his *Expédition scientifique en Mésopotamie*, Paris, Gide, 1858.

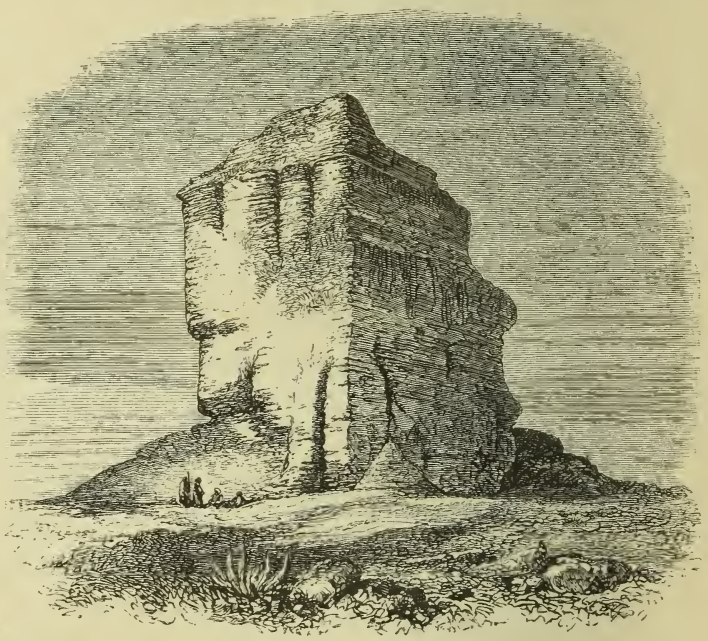
certainty to have been distinct from, though in the neighbourhood of, the capital.[8] A remnant of the ancient name appears to be contained in the modern appellation, Birs-Nimrud or Birs-i-Nimrud, which does not admit of any explanation from the existing language of the country.[9]

Fifteen miles from hence, to the north-east, chiefly but not entirely on the left or east bank of the Euphrates, are the remains of "Babylon the Great," which have been so frequently described by travellers, that little need be said of them in this place. The chief ruins cover a space about three miles long, and from one to two broad, and consist mainly of three great masses: the first a square mound, called "Babil" by the Arabs, lying towards the north at some distance from the other remains; the second or central mound, a pile called the "Kasr" or Palace; and the third, a great irregular heap lying towards the south, known as the "mound of Amram," from a tomb which crowns its summit. The "Kasr" and "Amram" mounds are enclosed within two lines of rampart, lying at right angles to each other, and forming, with the river, a sort of triangle, within which all the principal ruins are comprised, except the mound called "Babil." Beyond the rampart, towards the north, south, and east, and also across the river to the west, are various smaller detached ruins, while the whole ground, in every direction, is covered with fragments of brick and with nitre, the sure marks of former habitations.

The other cities of ancient Chaldæa which may be located with an approach to certainty, are Cutha, now Ibrahim, fifteen miles north-east by north of Hymar; Sippara or Sepharvaim, which was at Sura, near Mosaib on the Euphrates, about twenty miles above Babylon by the direct route; and Dur-Kurri-galzu, now Akkerkuf, on the Saklawiyeh canal, six miles from Baghdad, and thirty from Mosaib, in a direction a little west of north. Ihi, or Ahava, is probably Hit, ninety miles above Mosaib, on the right bank of the river; Chilmad may be Kalwadha, near Baghdad; and Rubesi is perhaps Zerghul, near the left bank of

[8] Berosus, *Fr.* 14; Strab. xvi. 1, § 7; Justin, xii. 13; Steph. Byz. ad voc.
[9] Rich, *First Memoir*, p. 34, note.

the Shat-el-Hie, a little above its confluence with the Euphrates. Chaldæan cities appear likewise to have existed at Hymar, ten miles from Babylon towards the east; at Sherifeh and Im Khithr, south and south-east of Hymar; at Zibbliyeh,[10] on the line of the Nil canal, fifteen miles north-west of Niffer; at Delayhim and Bismiya, in the Affej marshes, beyond Niffer, to



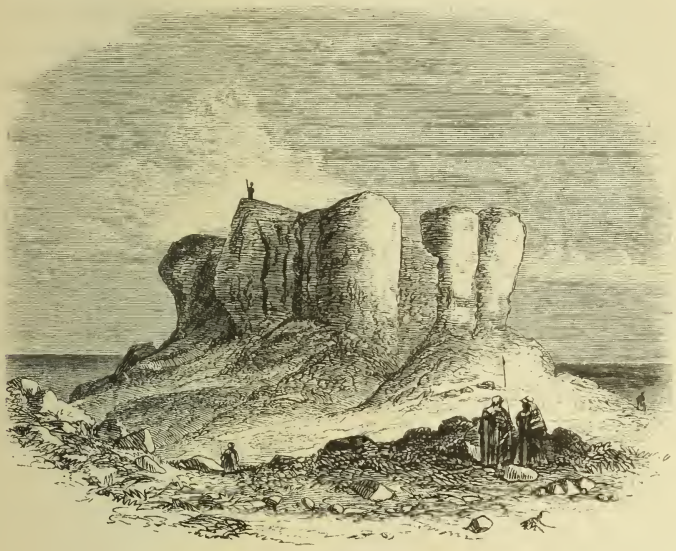
Akkerkuf.

the south-east; at Phara and Jidr, in the same region, to the south-west and south-east of Bismiya; at Hammam,[11] sixteen miles south-east of Phara, between the Affej and the Shatra marshes; at Tel-Ede, six miles from Hammam, to the south-south-west; at Tel-Medineh and Tel-Sifr, in the Shatra marshes,

[10] Layard, *Nineveh and Babylon*, p. 569. Mr. Loftus suggests that the remains here are of a later date. (*Chaldæa and Susiana*, p. 85.) Sir H. Rawlinson regards the existing buildings at Akkerkuf and Hammam as also of the Parthian age, though occupying the sites of earlier Chaldæan cities.

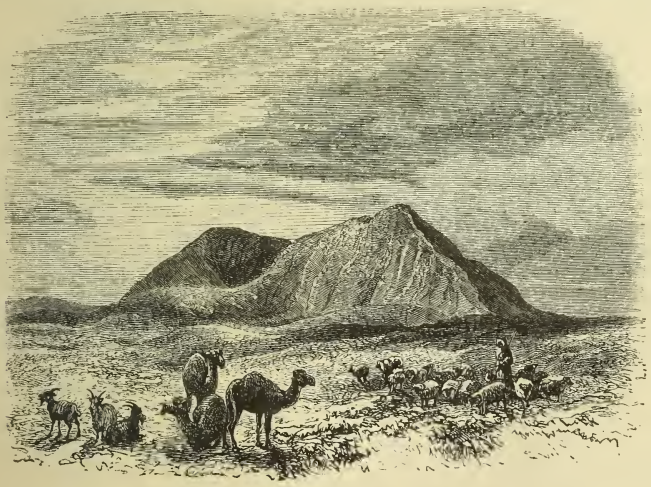
[11] Hammam is thought to be the Gulaba of the Cuneiform Inscriptions (Loftus, p. 113); but this identification is uncertain.

to the south-east of Tel-Ede and the north-east of Senkereh; at Yokha, east of Hammam, and Nuffdyji, north of Warka; at



Hammam.

Lethami, near Niffer; at Iskhuriyeh, north of Zibbliyeh, near the Tigris; at Tel Kheir and Tel Dhalab, in the upper part of



Tel-Ede.

the alluvium, to the north of Akkerkuf; at Duair, on the right bank of the Euphrates, south of Hilleh and south-east of the Birs Nimrud; at Jeb Mehari, south of the Bahr-i-Nedjif; at Mal Battush, near Swaje; at Tel-el-Lahm, nine or ten miles south of Suk-es-Sheioukh, and at Abu Shahrein, in the same neighbourhood, on the very border of the Arabian desert.[1] Further investigation will probably add largely to this catalogue, for many parts of Babylonia are still to some extent unexplored. This is especially true of the tract between the Shat-el-Hie and the lower Tigris,[2] a district which, according to the geographers, abounds with ruins. No doubt the most extensive and most striking of the old cities have been visited; for of these Europeans are sure to hear through the reports of natives. But it is more than probable that a number of the most interesting sites remain unexplored, and even unvisited; for these are not always either very extensive or very conspicuous. The process of gradual disintegration is continually lowering the height of the Chaldæan ruins; and depressed mounds are commonly the sign of an ancient and long-deserted city.[3] Such remains give us an insight into the character of the early people, which it is impossible to obtain from ruins where various populations have raised their fabrics in succession upon the same spot.

The cities here enumerated may not perhaps, in all cases, have existed in the Chaldæan period. The evidence hitherto obtained connects distinctly with that period only the following —Babylon, Ur or Hur, Larrak or Larsa, Erech or Huruk, Calneh or Nopher, Sippara, Dur-Kurri-galzu, Chilmad, and the places now called Abu Shahrein and Tel Sifr.[4] These sites, it will be observed, were scattered over the whole territory from the extreme south almost to the extreme north, and show the extent of the kingdom to have been that above assigned to it.[5] They are connected together by a similarity in building arrange-

[1] See Fraser's *Mesopotamia and Assyria*, pp. 150-155; Ainsworth's *Researches in Mesopotamia*, p. 127 and p. 177; Ross and Lynch, in *Journal of Geographical Society*, vol. ix. pp. 443 et seq.; Loftus' *Chaldæa and Susiana*, passim; and *Journal of Geographical Society*, vol. xxvi. pp. 133-144.

[2] This district has been visited by Mr. Taylor, but its marshy character makes it very difficult to explore at all completely.

[3] Loftus, *Chaldæa and Susiana*, p. 251.

[4] Ibid. p. 435. [5] See page 3.

ments and materials, in language, in form and type of writing, and sometimes in actual names of monarchs. The most ancient, apparently, are those towards the south, at Warka, Senkereh, Mugheir, and Niffer; and here, in the neighbourhood of the sea, which then probably reached inland as far as Suk-es-Sheioukh, there is sufficient reason to place the primitive seat of Chaldæan power. The capital of the whole region was at first Ur or Hur, but afterwards became Nipur, and finally Babel or Babylon.

The geography of Chaldæa is scarcely complete without a glance at the countries which adjoin upon it. On the west, approaching generally within twenty or thirty miles of the present course of the Euphrates, is the Arabian desert, consisting in this place of tertiary sands and gravels, having a general elevation of a few feet above the Mesopotamian plain, and occasionally rising into ridges of no great height, whose direction is parallel to the course of the great stream. Such are the Hazem and the Qassaim, in the country between the Bahr-i-Nedjif and the Persian Gulf, low pebbly ridges which skirt the valley from the Bahr to below Suk-es-Sheioukh. Further west the desert becomes more stony, its surface being strewn with numerous blocks of black granite, from which it derives its appellation of Hejerra.[6] No permanent streams water this region; occasional "wadys" or torrent-courses, only full after heavy rains, are found; but the scattered inhabitants depend for water chiefly on their wells, which are deep and numerous, but yield only a scanty supply of a brackish and unpalatable fluid. No settled population can at any time have found subsistence in this region, which produces only a few dates, and in places a poor and unsucculent herbage. Sandstorms are frequent, and at times the baleful simoom sweeps across the entire tract, destroying with its pestilential breath both men and animals.[7]

Towards the north Chaldæa adjoined upon Assyria. From the foot of that moderately lofty range already described,[8] which the Greeks called Masius, and the modern Turks know as Jebel Tur and Karajah Dagh, extends, for above 300 miles, a plain of

[6] See the *Journal of the Royal Asiatic Society*, vol. xv. p. 404.

[7] See the elder Niebuhr's *Description de l'Arabie*, pp. 7, 8.

[8] See p. 9.

low elevation, slightly undulating in places, and crossed about its centre by an important limestone ridge, known as the Sinjar hills, which have a direction nearly east and west, beginning about Mosul, and terminating a little below Rakkah. This tract differs from the Chaldæan lowland, by being at once less flat and more elevated. Geologically it is of secondary formation, while Chaldæa proper is tertiary or post-tertiary. It is fairly watered towards the north, but below the Sinjar is only very scantily supplied. In modern times it is for nine months in the year a desert, but anciently it was well inhabited, means having apparently been found to bring the whole into cultivation. As a complete account of this entire region must be given in another part of the present volume, this outline (it is thought) may suffice for our present purpose.

Eastward of Chaldæa, separated from it by the Tigris, which in its lower course is a stream of more body than the Euphrates, was the country known to the Jews as Elam,[9] to the early Greeks as Cissia,[1] and to the later Greeks as Susis or Susiana.[2] This territory comprised a portion of the mountain country which separates Mesopotamia from Persia; but it was chiefly composed of the broad and rich flats intervening between the mountains and the Tigris, along the courses of the Kerkhah, Kuran, and Jerahi rivers. It was a rich and fertile tract, resembling Chaldæa in its general character, with the exception that the vicinity of the mountains lent it freshness, giving it cooler streams, more frequent rains, and pleasanter breezes. Capable of maintaining with ease a dense population, it was likely, in the early times, to be a powerful rival to the Mesopotamian kingdom, over which we shall find that in fact it sometimes exercised supremacy.

On the south Chaldæa had no neighbour. Here a spacious sea, with few shoals, land-locked, and therefore protected from the violent storms of the Indian Ocean, invited to commerce, offering a ready communication with India and Ceylon, as well as with Arabia Felix, Ethiopia, and Egypt. It is perhaps to

[9] Dan. viii. 2.

[1] Æschylus, *Persæ*, 123; Herodotus, v. 52.

[2] Strabo, xv. 3, § 12.

this circumstance of her geographical position, as much as to any other, that ancient Chaldæa owes her superiority over her neighbours, and her right to be regarded as one of the five great monarchies of the ancient world. Commanding at once the sea, which reaches here deep into the land, and the great rivers by means of which the commodities of the land were most conveniently brought down to the sea, she lay in the high-way of trade, and could scarcely fail to profit by her position. There is sufficient reason to believe that Ur, the first capital, was a great maritime emporium; and if so, it can scarcely be doubted that to commerce and trade, at the least in part, the early development of Chaldæan greatness was owing.

CHAPTER II.

CLIMATE AND PRODUCTIONS.

"Ager totius Asiæ fertilissimus."—PLIN. *H. N.* vi. 26.

LOWER MESOPOTAMIA, or Chaldæa, which lies in the same latitude with Central China, the Punjab, Palestine, Marocco, Georgia, Texas, and Central California, has a climate the warmth of which is at least equal to that of any of those regions. Even in the more northern part of the country, the district about Baghdad, the thermometer often rises during the summer to 120° of Fahrenheit in the shade;[1] and the inhabitants are forced to retreat to their *serdabs* or cellars,[2] where they remain during the day, in an atmosphere which, by the entire exclusion of the sun's rays, is reduced to about 100°. Lower down the valley, at Zobair, Busrah, and Mohammrah, the summer temperature is still higher;[3] and, owing to the moisture of the atmosphere, consequent on the vicinity of the sea, the heat is of that peculiarly oppressive character which prevails on the sea-coast of Hindustan, in Ceylon, in the West Indian islands, at New Orleans, and in other places whose situation is similar. The vital powers languish under this oppression, which produces in the European a lassitude of body and a prostration of mind that wholly unfit him for active duties. On the Asiatic, however, these influences seem to have little effect. The Cha'b Arabs, who at present inhabit the region, are a tall and warlike race, strong-limbed, and muscular;[4] they appear to enjoy the climate, and are as active, as healthy, and as long-lived as any tribe of their nation. But if man by long residence becomes thoroughly inured to the intense heat of

[1] Loftus, *Chaldæa and Susiana*, p. 9.
[2] Chesney, *Euphrates Expedition*, vol. i. p. 106.
[3] Loftus, p. 280. This traveller found the temperature at Mohammrah, in June, 1850, to rise often to 124° of Fahrenheit in the shade.
[4] Ibid. p. 285.

these regions, it is otherwise with the animal creation. Camels sicken, and birds are so distressed by the high temperature that they sit in the date-trees about Baghdad, with their mouths open, panting for fresh air.[5]

The evils proceeding from a burning temperature are augmented in places under the influence of winds, which, arising suddenly, fill the air with an impalpable sand, sometimes circling about a point, sometimes driving with furious force across a wide extent of country. The heated particles, by their contact with the atmosphere, increase its fervid glow, and, penetrating by the nose and mouth, dry up the moisture of the tongue, parch the throat, and irritate or even choke the lungs.[6] Earth and sky are alike concealed by the dusty storm, through which no object can be distinguished that is removed many yards; a lurid gleam surrounds the traveller, and seems to accompany him as he moves; every landmark is hid from view; and to the danger of suffocation is added that of becoming bewildered and losing all knowledge of the road. Such are the perils encountered in the present condition of the country. It may be doubted, however, if in the times with which we are here concerned the evils just described had an existence. The sands of Chaldæa, which are still progressive and advancing, seem to have reached it from the Arabian Desert, to which they properly belong: year by year the drifts gain upon the alluvium, and threaten to spread over the whole country.[7] If we may calculate the earlier by the present rate of progress, we must conclude that anciently these shifting sands had at any rate not crossed the Euphrates.

If the heat of summer be thus fierce and trying, the cold of winter must be pronounced to be very moderate. Frost, indeed, is not unknown in the country;[8] but the frosts are only slight. Keen winds blow from the north, and in the morning the ground is often whitened by the congelation of the dew; the Arabs, impatient of a low temperature, droop and flag; but there is at

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[5] Loftus, p. 9, note.
[6] Ibid. p. 241; Layard, *Nineveh and Babylon*, p. 546.
[7] Loftus, pp. 81, 82.
[8] Layard, *Nineveh and Babylon*, l. s.c.; Loftus, *Chaldæa and Susiana*, p. 73; Fraser, *Travels*, vol. ii. pp. 37 and 47.

no time any severity of cold; ice rarely forms in the marshes; snow is unknown; and the thermometer, even on the grass, does not often sink below 30°. The Persian kings passed their winter in Babylon, on account of the mildness of the climate; and Indian princes, expelled from the Peninsula, are wont, from a similar cause, to fix their residence at Busrah or Baghdad. The cold of which travellers speak is relative rather than positive. The range of the thermometer in Lower Chaldæa is perhaps 100°, whereas in England it is scarcely 80°; there is thus a greater difference between the heat of summer and the cold of winter there than here; but the actual greatest cold—that which benumbs the Arabs and makes them fall from their horses[9]—is no more than we often experience in April, or even in May.

The rainy season of Chaldæa is in the winter time. Heavy showers fall in November, and still more in December, which sensibly raise the level of the rivers.[1] As the spring advances the showers become lighter and less frequent; but still they recur from time to time, until the summer sets in, about May. From May to November rain is very rare indeed. The sky continues for weeks or even months without a cloud; and the sun's rays are only tempered for a short time at morning and at evening by a grey mist or haze. It is during these months that the phenomenon of the mirage is most remarkable. The strata of air, unequally heated, and therefore differing in rarity, refract the rays of light, fantastically enlarging and distorting the objects seen through them, which frequently appear raised from the ground and hanging in mid-air, or else, by a repetition of their image, which is reflected in a lower stratum, give the impression that they stand up out of a lake. Hence the delusion which has so often driven the traveller to desperation—the "image of a cool rippling watery mirror,"[2] which flies

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[9] Mr. Loftus tells us that he has seen this effect of the cold.

[1] Sir H. Rawlinson, in the author's *Herodotus*, vol. i. p. 331, note [8]; Rich, *First Memoir*, p. 13; Chesney, *Euphrates Expedition*, vol. i. pp. 38, 39, and 61, 62.

[2] Humboldt, *Aspects of Nature*, vol. i. p. 18. See, for the fact, Layard, *Nineveh and Babylon*, p. 549; Loftus, p. 113.

before him as he advances, and at once provokes and mocks his thirst.

The fertility of Chaldæa in ancient times was proverbial. "Of all countries that we know," says Herodotus, "there is none that is so fruitful in grain. It makes no pretension, indeed, of growing the fig, the olive, the vine, or any other tree of the kind; but in grain it is so fruitful as to yield commonly two hundred-fold, and when the production is at the greatest, even three hundred-fold. The blade of the wheat-plant and of the barley-plant is often four fingers in breadth. As for the millet and the sesame, I shall not say to what height they grow, though within my own knowledge; for I am not ignorant that what I have already written concerning the fruitfulness of Babylonia must seem incredible to those who have not visited the country."[3] Theophrastus, the disciple of Aristotle, remarks—"In Babylon the wheat-fields are regularly mown twice, and then fed off with beasts, to keep down the luxuriance of the leaf; otherwise the plant does not run to ear. When this is done, the return, in lands that are badly cultivated, is fifty-fold; while, in those that are well farmed, it is a hundred-fold."[4] Strabo observes—"The country produces barley on a scale not known elsewhere, for the return is said to be three hundred-fold. All other wants are supplied by the palm, which furnishes not only bread, but wine, vinegar, honey, and meal."[5] Pliny follows Theophrastus, with the exception that he makes the return of the wheat-crop, where the land is well farmed, a hundred and fifty-fold.[6] The wealth of the region was strikingly exhibited by the heavy demands which were made upon it by the Persian kings, as well as by the riches which, notwithstanding these demands, were accumulated in the hands of those who administered its government. The money-tribute paid by Babylonia and Assyria to the Persians was a thousand talents of silver (nearly a quarter of a million of our money) annually;[7] while

[3] Herodotus, i. 193.
[4] Theophrast. *Hist. Plant.* viii. 7.
[5] Strabo, xvi. l, § 14. Compare Xen. *Anab.* ii. 3, §§ 14-16.
[6] Pliny, *Hist. Nat.* xviii. 17.
[7] Herodotus, iii. 92. If we set aside the Indian gold tribute, this was one-ninth of the whole tribute of the empire.

the tribute in kind was reckoned at one-third part of the contributions of the whole empire.[8] Yet, despite this drain on its resources, the government was regarded as the best that the Persian king had to bestow, and the wealth accumulated by Babylonian satraps was extraordinary. Herodotus tells us of a certain Tritantæchmes, a governor, who, to his own knowledge, derived from his province nearly two bushels of silver daily! This fortunate individual had a stud of sixteen thousand mares, with a proportionate number of horses.[9] Another evidence of the fertility of the region may be traced in the fear of Artaxerxes Mnemon, after the battle of Cunaxa, lest the Ten Thousand should determine to settle permanently in the vicinity of Sittace upon the Tigris.[1] Whatever opinion may be held as to the exact position of this place, and of the district intended by Xenophon, it is certain that it was in the alluvial plain,[2] and so contained within the limits of the ancient Chaldæa.

Modern travellers, speaking of Chaldæa in its present condition, express themselves less enthusiastically than the ancients; but, on the whole, agree with them as to the natural capabilities of the country. "The soil," says one of the most judicious, "is extremely fertile, producing great quantities of rice, dates, and grain of different kinds, though it is not cultivated to above half the degree of which it is susceptible."[3] "The soil is rich," says another, "not less bountiful than that on the banks of the Egyptian Nile."[4] "Although greatly changed by the neglect of man," observes a third, "those portions of Mesopotamia which are still cultivated, as the country about Hillah, show that the region has all the fertility ascribed to it by Herodotus."[5] There is a general recognition of the productive qualities of the district, combined with a general lamentation over the existing

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[8] Herodotus, i. 192. This proportion appears excessive. Perhaps Babylonia really supplied one-third of the *grain* which the court consumed.

[9] Ibid. l. s. c.

[1] Xen. *Anab.* ii. 4, § 22.

[2] Ibid. § 13. Compare Ainsworth, *Retreat of the Ten Thousand*, pp. 105-114. He regards the district intended as that between the Shat-Eidha and the bend of the Tigris, in lat. 34°. I should place it lower down, below Baghdad, near the ruins of Ctesiphon.

[3] Rich, *First Memoir*, p. 12.

[4] Loftus, *Chaldæa and Susiana*, p. 14.

[5] Chesney, *Euphrates Expedition*, vol. ii. p. 602.

neglect and apathy which allow such gifts of Nature to run to waste. Cultivation, we are told, is now the exception, instead of the rule. "Instead of the luxuriant fields, the groves and gardens of former times, nothing now meets the eye but an arid waste."[6] Many parts of Chaldæa, naturally as productive as any others, are at present pictures of desolation. Large tracts are covered by unwholesome marshes, producing nothing but enormous reeds; others lie waste and bare, parched up by the fierce heat of the sun, and utterly destitute of water; in some places, as has been already mentioned, sand-drifts accumulate, and threaten to make the whole region a mere portion of the desert.

The great cause of this difference between ancient and modern Chaldæa is the neglect of the water-courses. Left to themselves, the rivers tend to desert some portions of the alluvium wholly, which then become utterly unproductive; while they spread themselves out over others, which are converted thereby into pestilential swamps. A well-arranged system of embankments and irrigating canals is necessary in order to develop the natural capabilities of the country, and to derive from the rich soil of this vast alluvium the valuable and varied products which it can be made to furnish.

Among the natural products of the region two stand out as pre-eminently important—the wheat-plant and the date-palm. According to the native tradition,[7] wheat was indigenous in Chaldæa; and the first comers thus found themselves provided by the bountiful hand of Nature with the chief necessary of life. The luxuriance of the plant was excessive. Its leaves were as broad as the palm of a man's hand, and its tendency to grow leaves was so great that (as we have seen[8]) the Babylonians used to mow it twice and then pasture their cattle on it for a while, to keep down the blade and induce the plant to run to ear. The ultimate return was enormous: on the most moderate computation[9] it amounted to fifty-fold at the least, and often to a

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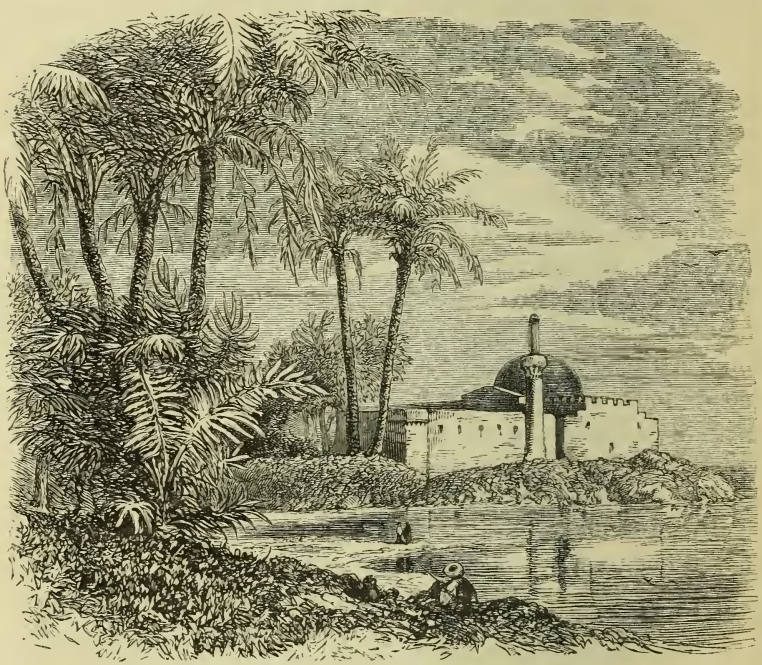
[6] Loftus, l. s. c. [7] Berosus, Fr. 1. [8] See p. 31.
[9] That of Theophrastus, the professed naturalist. See above, p. 31, note

hundred-fold. The modern Oriental is content, even in the case of a rich soil, with a ten-fold return.[1]

The date-palm was at once one of the most valuable and one of the most ornamental products of the country. "Of all vegetable forms," says the greatest of modern naturalists, "the palm is that to which the prize of beauty has been assigned by



Palms.

the concurrent voice of nations in all ages."[2] And though the date-palm is in form perhaps less graceful and lovely than some of its sister species, it possesses in the dates themselves a beauty which they lack. These charming yellow clusters, semi-transparent, which the Greeks likened to amber,[3] and moderns compare to gold,[4] contrast, both in shape and tint, with the green

[1] *Geograph. Journ.* vol. ix. p. 27. Compare Niebuhr, *Description de l'Arabie*, p. 134.

[2] Humboldt, *Aspects of Nature*, vol. ii. p. 20, E. T.

[3] Xen. *Anab.* ii. 3, § 15; Philostrat. *Vit. Apollon. Tyan.* i. 21.

[4] Loftus, *Chaldæa and Susiana*, p. 25.

feathery branches beneath whose shade they hang, and give a richness to the landscape they adorn which adds greatly to its attractions. And the utility of the palm has been at all times proverbial. A Persian poem celebrated its three hundred and sixty uses.[5] The Greeks, with more moderation, spoke of it as furnishing the Babylonians with bread, wine, vinegar, honey, groats, string and ropes of all kinds, firing, and a mash for fattening cattle.[6] The fruit was excellent, and has formed at all times an important article of nourishment in the country. It was eaten both fresh and dried, forming in the latter case a delicious sweetmeat.[7] The wine, "sweet but headachy,"[8] was probably not the spirit which it is at present customary to distil from the dates, but the slightly intoxicating drink called *lagby* in North Africa, which may be drawn from the tree itself by decapitating it, and suffering the juice to flow.[9] The vinegar was perhaps the same fluid corrupted, or it may have been obtained from the dates. The honey was palm-sugar, likewise procurable from the sap. How the groats were obtained we do not know; but it appears that the pith of the palm was eaten formerly in Babylonia, and was thought to have a very agreeable flavour.[10] Ropes were made from the fibres of the bark; and the wood was employed for building and furniture.[1] It was soft, light, and easily worked, but tough, strong, and fibrous.[2]

The cultivation of the date-palm was widely extended in Chaldæa, probably from very early times. The combination of sand, moisture, and a moderately saline soil, in which it delights,[3] was there found in perfection, more especially in the lower country, which had but recently been reclaimed from the sea. Even now, when cultivation is almost wholly laid aside, a thick forest of luxuriant date-trees clothes the banks of the Euphrates

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[5] Strabo, xvi. 1, § 14.

[6] Ibid.

[7] Xen. *Anab.* l. s. c. "The peasantry in Babylonia now principally subsist on dates pressed into cakes." Rich, *First Memoir*, p. 59, note.

[8] Ἡδὺ μὲν, κεφαλαλγὲς δέ. Xen. *Anab.* l. s. c.

[9] Hamilton's *Wanderings in North Africa*, ch. xiv. pp. 189, 190.

[10] Xen. *Anab.* ii. 3, § 16.

[1] Theophrast. *Hist. Plant.* ii. 7; p. 66.

[2] Ibid. v. 4 and 6.

[3] Theophrast. *Hist. Plant.* ii. 7; p. 64; Plin. *H. N.* xiii. 4.

on either side, from the vicinity of Mugheir to its embouchure at the head of the Persian Gulf.[4] Anciently the tract was much more generally wooded with them. "Palm-trees grow in numbers over the whole of the flat country," says one of the most observant and truthful of travellers—Herodotus.[5] According to the historians of Julian, a forest of verdure extended from the upper edge of the alluvium, which he crossed, to Mesene and the shores of the sea.[6] When the Arabian conquerors settled themselves in the lower country, they were so charmed with the luxuriant vegetation and the abundant date-groves, that they compared the region with the country about Damascus, and reckoned it among their four earthly paradises.[7] The propagation of the date-palm was chiefly from seed. In Chaldæa, however, it was increased sometimes from suckers or offshoots thrown up from the stem of the old tree;[8] at other times by a species of cutting, the entire head being struck off with about three feet of stem, notched, and then planted in moist ground.[9] Several varieties of the tree were cultivated; but one was esteemed above all the rest, both for the size and flavour of the fruit. It bore the name of "Royal," and grew only in one place near Babylon.[10]

Besides these two precious products, Chaldæa produced excellent barley, millet, sesame, vetches, and fruits of all kinds.[1] It was, however, deficient in variety of trees, possessing scarcely any but the palm and the cypress. Pomegranates, tamarisks, poplars, and acacias are even now almost the only trees besides the two above mentioned, to be found between Samarah and the Persian Gulf. The tamarisk grows chiefly as a shrub along the rivers, but sometimes attains the dimensions of a tree, as in the case of the "solitary tree" still growing upon the ruins of Babylon.[2] The pomegranates with their scarlet flowers, and the acacias with their light and graceful foliage,

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[4] Loftus, *Chaldæa and Susiana*, p. 127 and p. 277; Ainsworth, *Travels in the Track of the Ten Thousand*, p. 105.

[5] Herod. i. 193.

[6] Amm. Marc. xxiv. 3; Zosim. iii. pp. 173-9.

[7] Sir H. Rawlinson, in the *Journal of the Geographical Society*, vol. xxvii. p. 186.

[8] Theophrast. *Hist. Plant.* ii. 2; p. 53.

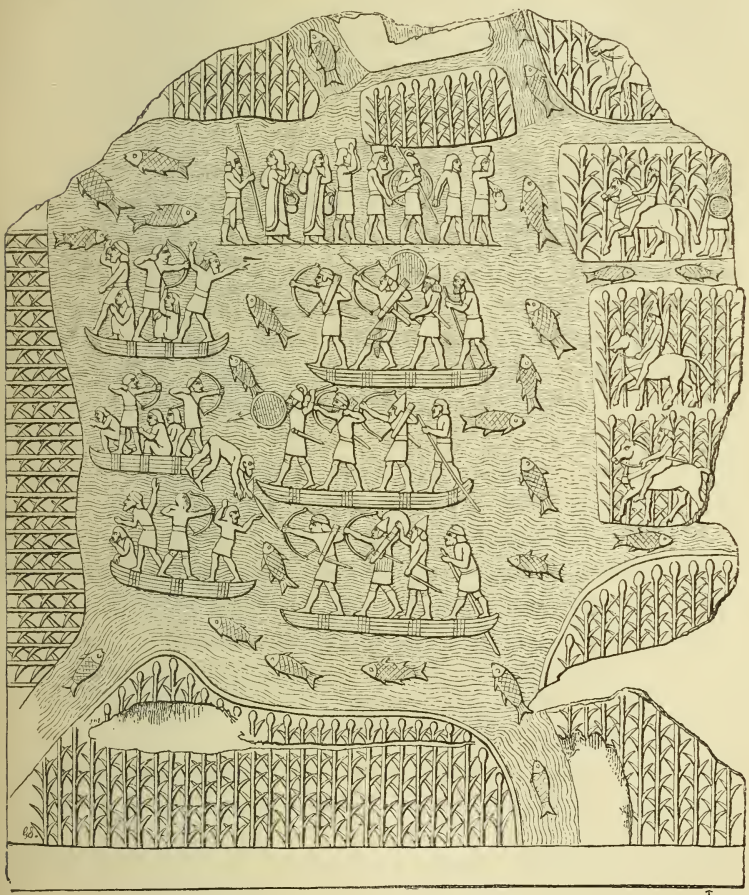
[9] Ibid. ii. 7; p. 64.

[10] Ibid. p. 67.

[1] Berosus, Fr. 1, § 2; Herod. i. 193.

[2] Rich, *First Memoir*, p. 26; Heeren, *Asiatic Nations*, vol. ii. p. 158; Ainsworth, *Researches in Assyria, Babylonia, and Chaldæa*, p. 125.

ornament the banks of the streams, generally intermingled with the far more frequent palm, while oranges, apples, pears, and vines are successfully cultivated in the gardens and orchards.



Chaldæan reeds, from an Assyrian sculpture (after Layard).

Among the vegetable products of Chaldæa must be noticed, as almost peculiar to the region, its enormous reeds. These, which are represented with much spirit in the sculptures of Sennacherib, cover the marshes in the summer-time, rising often to

the height of fourteen or fifteen feet.[3] The Arabs of the marsh region form their houses of this material, binding the stems of the reeds together, and bending them into arches, to make the skeleton of their buildings; while, to form the walls, they stretch across from arch to arch mats made of the leaves. From the same fragile substance they construct their *terradas* or light boats, which, when rendered waterproof by means of bitumen, will support the weight of three or four men.[4]

In mineral products Chaldæa was very deficient indeed. The alluvium is wholly destitute of metals, and even of stone, which must be obtained, if wanted, from the adjacent countries. The neighbouring parts of Arabia could furnish sandstone and the more distant basalt; which appears to have been in fact transported occasionally to the Chaldæan cities.[5] Probably, however, the chief importation of stone was by the rivers, whose waters would readily convey it to almost any part of Chaldæa from the regions above the alluvium. This we know to have been done in some cases;[6] but the evidence of the ruins makes it clear that such importation was very limited. The Chaldæans found, in default of stone, a very tolerable material in their own country; which produced an inexhaustible supply of excellent clay, easily moulded into bricks, and not even requiring to be baked in order to fit it for the builder. Exposure to the heat of the summer sun hardened the clay sufficiently for most purposes, while a few hours in a kiln made it as firm and durable as freestone, or even granite. Chaldæa, again, yielded various substances suitable for mortar. Calcareous earths abound on the western side of the Euphrates towards the Arabian frontier;[7] while everywhere a tenacious slime or mud is easily procurable, which, though imperfect as a cement, can serve the purpose, and has the advantage of being always at hand. Bitumen is also produced largely in some

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[3] Ainsworth, *Researches*, p. 129; Layard, *Nineveh and Babylon*, p. 553. Mr. Loftus says "12 or 14 feet." (*Chaldæa and Susiana*, p. 105.)

[4] Layard, pp. 522-524.

[5] Ibid. p. 528.

[6] Xenophon states that millstones were supplied to Babylon from a place which he calls Pylæ (Felujiah?), on the middle Euphrates. (*Anab.* i. 5, § 5.)

[7] Rich, *First Memoir*, p. 65.

parts, particularly at Hit, where are the inexhaustible springs which have made that spot famous in all ages.[8] Naphtha and bitumen are here given forth separately in equal abundance; and these two substances, boiled together in certain proportions, form a third kind of cement, superior to the slime or mud, but inferior to lime-mortar. Petroleum, called by the Orientals *mumia*, is another product of the bitumen-pits.[9]

The wild animals indigenous in Babylonia appear to be chiefly the following:—the lion, the leopard, the hyæna, the lynx, the wild-cat, the wolf, the jackal, the wild-boar, the buffalo, the stag, the gazelle, the jerboa, the fox, the hare, the badger, and the porcupine. The Mesopotamian lion is a noble animal. Taller and larger than a Mount St. Bernard dog, he wanders over the plains their undisputed lord, unless when an European ventures to question his pre-eminence. The Arabs tremble at his approach, and willingly surrender to him the choicest of their flocks and herds. Unless urged by hunger, he seldom attacks man, but contents himself with the destruction of buffaloes, camels, dogs, and sheep. When taken young, he is easily tamed, and then manifests considerable attachment to his master.[1] In his wild state he haunts the marshes and the banks of the various streams and canals, concealing himself during the day, and at night wandering abroad in search of his prey, to obtain which he will approach with boldness to the very skirts of an Arab encampment. His roar is not deep or terrible, but like the cry of a child in pain, or the first wail of the jackal after sunset, only louder, clearer, and more prolonged. Two

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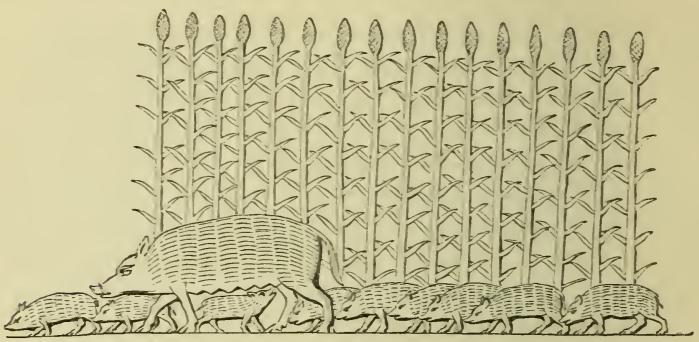
[8] Thothmes III. brought bitumen from Hit to Egypt about B.C. 1400. (See Sir G. Wilkinson's *Historical Notice of Egypt* in the author's *Herodotus*, vol. ii. p. 360.) Herodotus mentions Hit as the great place for bitumen, about B.C. 450 (Herod. i. 179). Isidore of Charax takes notice of its bitumen-springs, about B.C. 150 (*Mans. Parth.* p. 5). Shortly afterwards its name was made to include a notice of the bitumen; and thus it is called Ihi-da-kira in the Talmud, Idi-cara in Ptolemy, and Dacira by the historians of Julian—*kier* or *ghier* (قير) being the Arabic term for bitumen.

[9] Rich, *First Memoir*, pp. 63-4.

[1] Mr. Layard gives an amusing account of a tame lion which was given him by Osman Pasha, commandant of Hillah (*Nin. and Bab.* p. 487). Sir H. Rawlinson had a tame lion for some years at Baghdad, which was much attached to him, and finally died at his feet, not suffering the attendants to remove him.

varieties of the lion appear to exist: the one is maneless, while the other has a long mane, which is black and shaggy. The former is now the more common in the country; but the latter, which is the fiercer of the two,[2] is the one ordinarily represented upon the sculptures. The lioness is nearly as much feared as the lion; when her young are attacked, or when she has lost them, she is perhaps even more terrible. Her roar is said to be deeper and far more imposing than that of the male.[3]



Wild-sow and pigs, from Koyunjik.

The other animals require but few remarks. Gazelles are plentiful in the more sandy regions; buffaloes abound in the marshes of the south, where they are domesticated, and form the chief wealth of the inhabitants;[4] troops of jackals are common, while the hyæna and wolf are comparatively rare; the wild-boar frequents the river banks and marshes, as depicted in the Assyrian sculptures; hares abound in the country about Baghdad; porcupines and badgers are found in most places; leopards, lynxes, wild-cats, and deer, are somewhat uncommon.

Chaldæa possesses a great variety of birds. Falcons, vultures, kites, owls, hawks and crows of various kinds, francolins or

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[2] The inhabitants call the maneless lions "true believers," those with manes *ghaours* or "infidels." The former, they say, will spare a Mussulman if he prays, the latter never. (Layard, *Nin. and Bab.* p. 487, note.) A similar distinction, I learn from Sir Gardner Wilkinson, is made at Cairo between the green and the black crocodile.

[3] Loftus, *Chaldæa and Susiana*, p. 259.

[4] Layard, *Nineveh and Babylon*, p. 566.

black partridges, pelicans, wild-geese, ducks, teal, cranes, herons, kingfishers, and pigeons, are among the most common. The sand-grouse (*Pterocles arenarius*) is occasionally found, as also are the eagle and the bee-eater. Fish are abundant in the rivers and marshes, principally barbel and carp, which latter grow to a great size in the Euphrates. Barbel form an important element in the food of the Arabs inhabiting the Affej marshes, who take them commonly by means of a fish-spear.[5] In the Shat-el-Arab, which is wholly within the influence of the tides, there is a species of goby, which is amphibious. This fish lies in myriads on the mud-banks left uncovered by the ebb of the tide, and moves with great agility on the approach of birds. Nature seems to have made the goby in one of her most freakish moods. It is equally at home in the earth, the air, and the water; and at different times in the day may be observed swimming in the stream, basking upon the surface of the tidal banks, and burrowing deep in the mud.[6]

The domestic animals are camels, horses, buffaloes, cows and oxen, goats, sheep, and dogs. The most valuable of the last-mentioned are greyhounds, which are employed to course the gazelle and the hare. The camels, horses, and buffaloes are of superior quality; but the cows and oxen seem to be a very inferior breed.[7] The goats and the sheep are small, and yield a scanty supply of a somewhat coarse wool.[8] Still their flocks and herds constitute the chief wealth of the people, who have nearly forsaken the agriculture which anciently gave Chaldæa its pre-eminence, and have relapsed very generally into a nomadic or semi-nomadic condition. The insecurity of property consequent upon bad government has in a great measure caused this change, which renders the bounty of Nature useless, and allows immense capabilities to run to waste. The present condition of Babylonia gives a most imperfect idea of its former state, which must be estimated not from modern statistics, but

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[5] Layard, *Nineveh and Babylon*, p. 567.
[6] Ainsworth, *Researches*, pp. 135, 136; Fraser, *Mesopotamia and Assyria*, p. 373.
[7] Chesney, *Euphrates Expedition*, vol. i. p. 108.
[8] Layard, *Nineveh and Babylon*, p. 566.

from the accounts of ancient writers and the evidences which the country itself presents. From them we conclude that this region was among the most productive upon the face of the earth, spontaneously producing some of the best gifts of God to man, and capable, under careful management, of being made one continuous garden.

CHAPTER III.

THE PEOPLE.

"A mighty nation, an ancient nation."—JEREM. v. 15.

THAT the great alluvial plain at the mouth of the Euphrates and Tigris was among the countries first occupied by man after the Deluge, is affirmed by Scripture,[1] and generally allowed by writers upon ancient history.[2] Scripture places the original occupation at a time when language had not yet broken up into its different forms, and when, consequently, races, as we now understand the term, can scarcely have existed. It is not, however, into the character of these primeval inhabitants that we have here to inquire, but into the ethnic affinities and characteristics of that race, whatever it was, which first established an important kingdom in the lower part of the plain—a kingdom which eventually became an empire. According to the ordinary theory, this race was Aramaic or Semitic. "The name of Aramæans, Syrians, or Assyrians," says Niebuhr, "comprises the nations extending from the mouth of the Euphrates and Tigris to the Euxine, the river Halys, and Palestine. They applied to themselves the name Aram, and the Greeks called them Assyrians, which is the same as Syrians (?). Within that great extent of country there existed, of course, various dialectic differences of language; and there can be little doubt but that in some places the nation was mixed with other races."[3] The early inhabitants of Lower Mesopotamia, however, he considers to have been pure Aramæans, closely akin to the Assyrians, from whom, indeed, he regards them as only separate politically.[4]

[1] Gen. xi. 1-9.

[2] Heeren, *Asiatic Nations*, vol. ii. p. 130; Sir H. Rawlinson, in the *Journal of the Asiatic Society*, vol. xv. p. 232; Vaux, *Nineveh and Persepolis*, p. 6; Chesney, *Euphrates Expedition*, vol. ii. p. 18; Lenormant, *Histoire ancienne de l'Orient*, vol. ii. p. 5; &c.

[3] Niebuhr, *Lectures on Ancient History*, vol. i. p. 12, E. T.

[4] Ibid. p. 11: "We shall begin with the Assyrians; but with *those of Babylon*: not, like Justin, with those of Nineveh."

Similar views are entertained by most modern writers.[5] Baron Bunsen, in one of his latest works,[6] regards the fact as completely established by the results of recent researches in Babylonia. Professor M. Müller, though expressing himself with more caution, inclines to the same conclusion.[7] Popular works, in the shape of Cyclopædias and short general histories, diffuse the impression. Hence a difficulty is felt with regard to the Scriptural statement concerning the first kingdom in these parts, which is expressly said to have been Cushite or Ethiopian. "And *Cush begat Nimrod:* (he began to be a mighty one in the earth; he was a mighty hunter before the Lord; wherefore it is said, Even as Nimrod, the mighty hunter before the Lord;) and the beginning of his kingdom was Babel, and Erech, and Accad, and Calneh, in the land of Shinar."[8] According to this passage the early Chaldæans should be Hamites, not Semites—Ethiopians, not Aramæans; they should present analogies and points of connexion with the inhabitants of Egypt and Abyssinia, of Southern Arabia and Mekran, not with those of Upper Mesopotamia, Syria, Phœnicia, and Palestine. It will be one of the objects of this chapter to show that the Mosaïcal narrative conveys the exact truth—a truth alike in accordance with the earliest classical traditions, and with the latest results of modern comparative philology.

It will be desirable, however, before proceeding to establish the correctness of these assertions, to examine the grounds on which the opposite belief has been held so long and so confidently. Heeren draws his chief argument from the supposed character of the language. Assuming the form of speech called Chaldee to be the original tongue of the people, he remarks that it is "an Aramæan dialect, differing but slightly from the proper Syriac."[9] Chaldee is known partly from the Jewish Scriptures, in which it is used occasionally,[1] partly from the

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[5] Heeren, *As. Nat.* vol. ii. p. 145; Prichard, *Physical History of Mankind*, vol. iv. p. 568; Kitto, *Biblical Cyclopædia*, vol. i. p. 275.

[6] *Philosophy of Universal History*, vol. i. p. 193.

[7] *Languages of the Seat of War*, pp. 24, 25 (first edition).

[8] Gen. x. 8-10. [9] *As. Nat.* l. s. c.

[1] The portions of the Old Testament written in the so-called Chaldee are Ezra, iv. 8 to vi. 18, and vii. 12-26;

Targums (or Chaldæan paraphrases of different portions of the Sacred Volume), some of which belong to about the time of the Apostles, and partly from the two Talmuds, or collections of Jewish traditions, made in the third and fifth centuries of our era. It has been commonly regarded as the language of Babylon at the time of the Captivity, which the Jews, as captives, were forced to learn, and which thenceforth took the place of their own tongue. But it is extremely doubtful whether this is a true account of the matter. The Babylonian language of the age of Nebuchadnezzar is found to be far nearer to Hebrew than to Chaldee, which appears therefore to be misnamed, and to represent the western rather than the eastern Aramaic. The Chaldee argument thus falls to the ground; but in refuting it an admission has been made which may be thought to furnish fully as good proof of early Babylonian Semitism as the rejected theory.

It has been said that the Babylonian language in the time of Nebuchadnezzar is found to be far nearer to Hebrew than to Chaldee. It is, in fact, very close indeed to the Hebrew. The Babylonians of that period, although they did not speak the tongue known to modern linguists as Chaldee, did certainly employ a Semitic or Aramæan dialect, and so far may be set down as Semites. And this is the ground upon which such modern philologists as still maintain the Semitic character of the primitive Chaldæans principally rely.[2] But it can be proved, from the inscriptions of the country, that between the date of the first establishment of a Chaldæan kingdom and the reign of Nebuchadnezzar, the language of Lower Mesopotamia underwent an entire change. To whatever causes this may have been owing—a subject which will be hereafter investigated[3]—the fact is certain; and it entirely destroys the force of the argument from the language of the Babylonians at the later period.

Another ground, and that which seems to have had the chief

Daniel, ii. 4 to vii. 28; and Jeremiah, x. 10. There is also a Chaldee gloss in Genesis, xxxi. 47.

[2] Bunsen, *Philosophy of Universal History*, pp. 193 and 201; Müller, *Languages*, &c. l. s. c.

[3] See below, ch. iv. pp. 61-69.

weight with Niebuhr, is the supposed identity or intimate connexion of the Babylonians with the Assyrians. That the latter people were Semites has never been denied; and, indeed, it is a point supported by such an amount of evidence as renders it quite unassailable. If, therefore, the primitive Babylonians were once proved to be a mere portion of the far greater Assyrian nation, locally and politically, but not ethnically separate from them, their Semitic character would thereupon be fully established. Now that this was the belief of Herodotus must be at once allowed. Not only does that writer regard the later Babylonians as Assyrians—"Assyrians of Babylon," as he expresses it[4]—and look on Babylonia as a mere "district of Assyria,"[5] but, by adopting the mythic genealogy, which made Ninus the son of Belus,[6] he throws back the connexion to the very origin of the two nations, and distinctly pronounces it a connexion of race. But Herodotus is a very weak authority on the *antiquities* of any nation, even his own; and it is not surprising that he should have carried back to a remote period a state of things which he saw existing in his own age. If the later Babylonians were, in manners and customs, in religion and in language, a close counterpart of the Assyrians, he would naturally suppose them descended from the same stock. It is his habit to transfer back to former times the condition of things in his own day. Thus he calls the inhabitants of the Peloponnese before the Dorian invasion "Dorians,"[7] regards Athens as the second city in Greece when Crœsus sent his embassies,[8] and describes as the ancient Persian religion that corrupted form which existed under Artaxerxes Longimanus.[9] He is an excellent authority for what he had himself seen, or for what he had laboriously collected by inquiry from eye-witnesses; but he had neither the critical acumen nor the linguistic knowledge necessary for the formation of a trustworthy opinion on a matter belonging to the remote history of a distant people. And the opinion of Herodotus as to the ethnic identity of the two nations is certainly not confirmed by other

[4] Herod. i. 177. [5] Ibid. ch. 106. [6] Ibid. ch. 7. [7] Ibid. vi. 53.
[8] Ibid. i. 56. [9] Ibid. iii. 16.

ancient writers. Berosus seems to have very carefully distinguished between the Assyrians and the Babylonians or Chaldæans, as may be seen even through the doubly-distorting medium of Polyhistor and the Armenian Eusebius.[1] Diodorus Siculus made the two nations separate and hostile in very early times.[2] Pliny draws a clear line between the "Chaldæan races," of which Babylon was the head, and the Assyrians of the region above them.[3] Even Herodotus in one place admits a certain amount of ethnic difference; for, in his list of the nations forming the army of Xerxes, he mentions the Chaldæans as serving with, but not included among, the Assyrians.[4]

The grounds, then, upon which the supposed Semitic character of the ancient Chaldæans has been based, fail, one and all; and it remains to consider whether we have data sufficient to justify us in determinately assigning them to any other stock.

Now a large amount of tradition—classical and other—brings Ethiopians into these parts, and connects, more or less distinctly, the early dwellers upon the Persian Gulf with the inhabitants of the Nile valley, especially with those upon its upper course. Homer, speaking of the Ethiopians, says that they were "*divided*," and dwelt "at the ends of earth, towards the setting and the *rising sun*."[5] This passage has been variously apprehended. It has been supposed to mean the mere division of the Ethiopians south of Egypt by the river Nile, whereby some inhabited its eastern and some its western bank.[6] Again, it has been explained as referring to the east and west coasts of Africa, both found by voyagers to be in the possession of Ethiopians, who were "divided" by the vast extent of continent that lay between them.[7] But the most satisfactory explanation is that which Strabo gives from Ephorus,[8] that the Ethiopians were considered as occupying all the south coast both of Asia and Africa, and as "divided" by the Arabian Gulf (which separated the two continents) into eastern and western—Asiatic and

[1] Euseb. *Chron. Can.* i. 4 and 5; pp. 17-21; ed. Mai.
[2] Diod. Sic. ii. 1, § 7.
[3] Plin. *H. N.* vi. 26.
[4] Herod. vii. 63.
[5] Hom. *Od.* i. 23, 24—
Αἰθίοπας, τοὶ διχθὰ δεδαίαται, ἔσχατοι ἀνδρῶν,
Οἱ μὲν δυσομένου Ὑπερίονος, οἱ δ' ἀνιόντος.
[6] Strab. i. 2, § 25.
[7] Ibid. § 26.
[8] Ibid. §§ 26-31.

African. This was an "old opinion" of the Greeks, we are told; and, though Strabo thinks it indicated their ignorance, we may perhaps be excused for holding that it might not improbably have arisen from real, though imperfect, knowledge.

The traditions with respect to Memnon serve very closely to connect Egypt and Ethiopia with the country at the head of the Persian Gulf. Memnon, King of Ethiopia, according to Hesiod[9] and Pindar,[1] is regarded by Æschylus as the son of a Cissian woman,[2] and by Herodotus and others as the founder of Susa.[3] He leads an army of combined Susianians and Ethiopians to the assistance of Priam, his father's brother, and, after greatly distinguishing himself, perishes in one of the battles before Troy.[4] At the same time he is claimed as one of their monarchs by the Ethiopians upon the Nile,[5] and identified by the Egyptians with their king, Amunoph III.,[6] whose statue became known as "the vocal Memnon." Sometimes his expedition is supposed to have started from the African Ethiopia, and to have proceeded by way of Egypt to its destination.[7] There were palaces, called "Memnonia," and supposed to have been built by him, both in Egypt and at Susa;[8] and there was a tribe, called Memnones, near Meroë.[9] Memnon thus unites the Eastern with the Western Ethiopians; and the less we regard him as an historical personage, the more must we view him as personifying the ethnic identity of the two races.

The ordinary genealogies containing the name of Belus point in the same direction, and serve more definitely to connect the Babylonians with the Cushites of the Nile. Pherecydes, who is an earlier writer than Herodotus, makes Agenor, the son of Neptune, marry Damno, the daughter of Belus, and have issue Phœnix, Isæa, and Melia, of whom Melia marries Danaus, and

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[9] Hesiod. *Theogon.* 984: "Μέμνονα χαλκοκορυστήν, Αἰθιόπων βασιλῆα."

[1] Pind. *Nem.* iii. 62, 63.

[2] Ap. Strab. xv. 3, § 2.

[3] Herod. v. 54. Compare Strab. l. s. c.; Diod. Sic. ii. 22, § 3.

[4] Diod. Sic. l. s. c.; Pausan. x. 31, § 2; Cephalion ap. Euseb. *Chron. Can.* i. 15, § 5.

[5] Diod. Sic. ii. 22, § 4.

[6] Euseb. *Chron. Can.* ii. p. 278; Syncellus, *Chronograph.* p. 151, C. Compare Strab. xvii. 1, § 42; and Plin. *H. N.* v. 9.

[7] Demetrius ap. Athen. *Deipnosoph.* xv. p. 680, A.

[8] Herod. v. 53; Strab. xv. 3, § 2, xvii. 1, § 42; Diod. Sic. l. s. c.; Plin. *H. N.* l. s. c.

[9] Alex. Polyhist. Fr. 111; Plin. *H. N.* vi. 30.

Isæa Ægyptus.[1] Apollodorus, the disciple of Eratosthenes, expresses the connexion thus:—"Neptune took to wife Libya (or Africa), and had issue Belus and Agenor. Belus married Anchinoë, daughter of Nile, who gave birth to Ægyptus, Danaus, Cepheus, and Phineus. Agenor married Telephassa, and had issue Europa, Cadmus, Phœnix, and Cilix."[2] Eupolemus, who professes to record the Babylonian tradition on the subject, tells us that the first Belus, whom he identifies with Saturn, had two sons, Belus and Canaan. Canaan begat the progenitor of the Phœnicians (Phœnix?), who had two sons, Chum and Mestraïm, the ancestors respectively of the Ethiopians and the Egyptians.[3] Charax of Pergamus spoke of Ægyptus as the son of Belus.[4] John of Antioch agrees with Apollodorus, but makes certain additions. According to him, Neptune and Libya had three children, Agenor, Belus, and Enyalius or Mars. Belus married Sida, and had issue Ægyptus and Danaus; while Agenor married Tyro, and became the father of five children—Cadmus, Phœnix, Syrus, Cilix, and Europa.[5]

Many further proofs might be adduced, were they needed, of the Greek belief in an Asiatic Ethiopia, situated somewhere between Arabia and India, on the shores of the Erythræan Sea. Herodotus twice speaks of the Ethiopians of Asia,[6] whom he very carefully distinguishes from those of Africa, and who can only be sought in this position. Ephorus, as we have already seen, extended the Ethiopians along the whole of the coast washed by the Southern Ocean. Eusebius has preserved a tradition that, in the reign of Amenophis III., a body of Ethiopians migrated from the country about the Indus, and settled in the valley of the Nile.[7] Hesiod and Apollodorus, by making Memnon, the Ethiopian king, son of the Dawn (Ἠώς),[8] imply their belief in an Ethiopia situated to the east rather than to the south of Greece. These are a few out of the many similar notices which it would be easy to produce from classical

[1] Pherecyd. Fr. 40.
[2] Apollodor. *Bibliothec.* ii. 1, § 4.
[3] See the Fragments of Polyhistor in Müller's *Fr. Hist. Græc.* vol. iii. p. 212; Fr. 3.
[4] Charax ap. Steph. Byz. s. v. Αἴγυπτος.
[5] Johann. Antiochen. Fr. 6, § 15.
[6] Herod. iii. 94; vii. 70.
[7] Euseb. *Chron. Can.* ii. p. 278.
[8] Hesiod, l. s. c.; Apollod. iii. 12, § 4.

writers, establishing, if not the fact itself, yet at any rate a full belief in the fact on the part of the best informed among the ancient Greeks.

The traditions of the Armenians are in accordance with those of the Greeks. The Armenian Geography applies the name of Cush or Ethiopia to the four great regions, Media, Persia, Susiana or Elymaïs, and Aria, or to the whole territory between the Indus and the Tigris.[9] Moses of Chorene, the great Armenian historian, identifies Belus, King of Babylon, with Nimrod;[1] while at the same time he adopts for him a genealogy only slightly different from that in our present copies of Genesis, making Nimrod the grandson of Cush, and the son of Mizraim.[2] He thus connects, in the closest way, Babylonia, Egypt, and Ethiopia Proper, uniting moreover, by his identification of Nimrod with Belus, the Babylonians of later times, who worshipped Belus as their hero-founder, with the primitive population introduced into the country by Nimrod.

The names of Belus and Cush, thus brought into juxtaposition, have remained attached to some portion or other of the region in question from ancient times to the present day. The tract immediately east of the Tigris was known to the Greeks as Cissia (Κισσία) or Cossæa (Κοσσαία), no less than as Elymaïs or Elam. The country east of Kerman was named Kusan throughout the Sassanian period.[3] The same region is now Beloochistan, the country of the Belooches or Belús, while adjoining it on the east is Cutch, or Kooch, a term standing to Cush as Belooch stands to Belus. Again, Cissia or Cossæa is now Khuzistan, or the land of Khuz (خوز) a name not very remote from Cush; but perhaps this is only a coincidence.

To the traditions and traces here enumerated must be added, as of primary importance, the Biblical tradition, which is delivered to us very simply and plainly in that precious document, the 'Toldoth Beni Noah,' or 'Book of the Generations of the Sons of Noah,' which well deserves to be called "the most

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[9] Mos. Choren. *Geograph.* pp. 363-5.
[1] Mos. Choren. *Hist. Armen.* i. 6; pp. 19, 20.
[2] Ibid. i. 4; p. 12.
[3] *Journal of Asiatic Society*, vol. xv. p. 233.

authentic record that we possess for the affiliation of nations."[4] "The sons of Ham," we are told, "were Cush, and Mizraim, and Phut, and Canaan. . . . . And Cush begat Nimrod. . . . . And the beginning of his kingdom was Babel, and Erech, and Accad, and Calneh, in the land of Shinar." Here a primitive Babylonian kingdom is assigned to a people distinctly said to have been Cushite by blood,[5] and to have stood in close connexion with Mizraim, or the people of Egypt, Phut, or those of Central Africa, and Canaan, or those of Palestine. It is the simplest and the best interpretation of this passage to understand it as asserting that the four races — the Egyptians, Ethiopians, Libyans, and Canaanites — were ethnically connected, being all descended from Ham; and further, that the primitive people of Babylon were a subdivision of one of these races, namely of the Cushites or Ethiopians, connected in some degree with the Canaanites, Egyptians, and Libyans, but still more closely with the people which dwelt anciently upon the Upper Nile.

The conclusions thus recommended to us by the consentient primitive traditions of so many races, have lately received most important and unexpected confirmation from the results of linguistic research. After the most remarkable of the Mesopotamian mounds had yielded their treasures, and supplied the historical student with numerous and copious documents bearing upon the history of the great Assyrian and Babylonian empires, it was determined to explore Chaldæa Proper, where mounds of less pretension, but still of considerable height,

[4] *Journal of Asiatic Society*, vol. xv. p. 230.

[5] "And Cush *begat* Nimrod," Gen. x. 8. Baron Bunsen says in one work, "Nimrod is called a Cushite, which means a man of the land of Cush" (*Philos. of Univ. Hist.* vol. i. p. 191), and proceeds to argue that he was only a Cushite "geographically," because he, or the people represented by him, sojourned for some time in Ethiopia. In another (*Egypt's Place*, &c., vol. iv. p. 412), he admits that this view contradicts Gen. x. 8, and allows that "the compiler of our present Book of Genesis" must have meant to derive Nimrod by descent from Ham; but this "compiler" was, he thinks, deceived by the resemblance of כוּשׁ to כוּשׁ. Nimrod was not an Ethiopian, but a Cossian or Cossæan; *i.e.* (he says) a Turanian who conquered Babylon from the mountain country east of Mesopotamia. Of course, if we are at liberty to regard the "compiler" of Genesis as "mistaken" whenever his statements conflict with our theories, while at the same time we ignore linguistic facts, we may speculate upon ancient history and ethnography much at our pleasure.

marked the sites of a number of ancient cities. The excavations conducted at these places, especially at Niffer, Senkereh, Warka, and Mugheir, were eminently successful. Among their other unexpected results was the discovery, in the most ancient remains, of a new form of speech, differing greatly from the later Babylonian language, and presenting analogies with the early language of Susiana, as well as with that of the second column of the Achæmenian inscriptions. In grammatical structure this ancient tongue resembles dialects of the Turanian family, but its vocabulary has been pronounced to be "decidedly Cushite or Ethiopian;"[6] and the modern languages to which it approaches the nearest are thought to be the Mahra of Southern Arabia and the Galla of Abyssinia. Thus comparative philology appears to confirm the old traditions. An Eastern Ethiopia, instead of being the invention of bewildered ignorance,[7] is rather a reality which henceforth it will require a good deal of scepticism to doubt; and the primitive race which bore sway in Chaldæa Proper is with much probability assigned to this ethnic type.

The most striking physical characteristics of the African Ethiopians were their swart complexions, and their crisp or frizzled hair. According to Herodotus the Asiatic Ethiopians were equally dark, but their hair was straight and not frizzled.[8] Probably in neither case was the complexion what we understand by black, but rather a dark red brown or copper-colour, which is the tint of the modern Gallas and Abyssinians, as well as of the Cha'b and Montefik Arabs and the Belooches. The hair was no doubt abundant; but it was certainly not woolly like that of the negroes. There is a marked distinction between the negro hair and that of the Ethiopian race, which is sometimes straight, sometimes crisp, but never woolly. This distinction is carefully marked in the Egyptian monuments, as is also the

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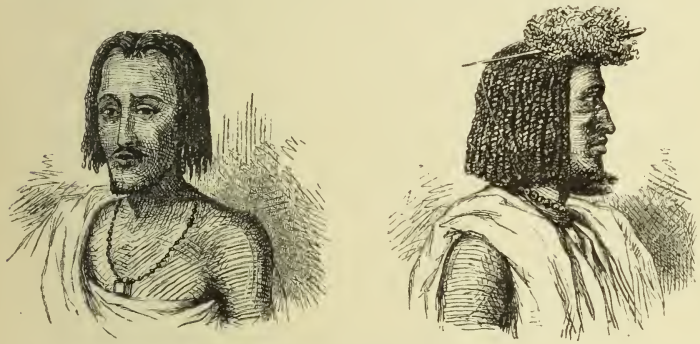
[6] Sir H. Rawlinson, in the author's *Herodotus*, vol. i. p. 442.

[7] "The Bible mentions but one Kush, Æthiopia; an Asiatic Kush exists only in the imagination of the interpreters, and is the child of their despair." Bunsen, *Philosophy of Univ. Hist.* vol. i. p. 191. See on the other hand Sir H. Rawlinson's article in the *Journal of the Asiatic Society*, vol. xv. art. ii.; and compare especially Ezek. xxxviii. 5.

[8] Herod. vii. 70.

distinction between the Ethiopian and negro complexions; whence we may conclude that there was as much difference between the two races in ancient as in modern times. The African races descended from the Ethiopians are on the whole a handsome rather than an ugly people. Their figure is slender and well shaped; their features are regular, and have some delicacy; the forehead is straight and fairly high; the nose long, straight, and fine, but scarcely so prominent as that of Europeans; the chin is pointed and good. The principal defect is in the mouth, which has lips too thick and full for beauty, though they are not turned out like a negro's.[9] We do not



Ethiopians (after Prichard).

possess any representations of the ancient people which can be distinctly assigned to the early Cushite period. Abundant hair has been noticed in an early tomb;[1] and this in the later Babylonians, who must have been descended in great part from the earlier, was very conspicuous;[2] but otherwise we have as yet no direct evidence with respect to the physical characteristics of the primitive race.[3] That they were brave and warlike, ingenious, energetic, and persevering, we have ample evidence, which will appear in later chapters of this work; but we can do little more than conjecture their physical appearance, which,

[9] See Prichard's *Physical Hist. of Mankind*, vol. ii. p. 44.

[1] Loftus, *Chaldæa and Susiana*, p. 202.

[2] See the Cylinders, *passim*; and compare Herod. i. 195.

[3] Skeletons have been found in abundance, but they have undergone no scientific examination.

however, we may fairly suppose to have resembled that of other Ethiopian nations.

When the early inhabitants of Chaldæa are pronounced to have belonged to the same race with the dwellers upon the Upper Nile, the question naturally arises, which were the primitive people, and which the colonists? Is the country at the head of the Persian Gulf to be regarded as the original abode of the Cushite race, whence it spread eastward and westward, on the one hand to Susiana, Persia Proper, Carmania, Gedrosia, and India itself; on the other to Arabia and the east coast of Africa? Or are we to suppose that the migration proceeded in one direction only—that the Cushites, having occupied the country immediately to the south of Egypt, sent their colonies along the south coast of Arabia, whence they crept on into the Persian Gulf, occupying Chaldæa and Susiana, and thence spreading into Mekran, Kerman, and the regions bordering upon the Indus? Plausible reasons may be adduced in support of either hypothesis. The situation of Babylonia, and its proximity to that mountain region where man must have first "increased and multiplied" after the Flood, are in favour of its being the original centre from which the other Cushite races were derived. The Biblical genealogy of the sons of Ham points, however, the other way; for it derives Nimrod from Cush, not Cush from Nimrod. Indeed this document seems to follow the Hamites from Africa—emphatically "the land of Ham"[4]—in one line along Southern Arabia to Shinar or Babylonia, in another from Egypt through Canaan into Syria. The antiquity of civilization in the valley of the Nile, which preceded by many centuries that even of primitive Chaldæa, is another argument in favour of the migration having been from west to east; and the monuments and traditions of the Chaldæans themselves have been thought to present some curious indications of an East African origin.[5] On the whole, therefore, it seems most probable that the race designated in Scripture by the hero-founder Nimrod,

[4] Ps. lxxviii. 51; cv. 23, 27; cvi. 22. Egypt is called *Chemi* in the native inscriptions.

[5] See the Essay of Sir H. Rawlinson, in the author's *Herodotus*, vol. i. p. 442, note (1st edition).

and among the Greeks by the eponym of Belus, passed from East Africa, by way of Arabia, to the valley of the Euphrates, shortly before the opening of the historical period.

Upon the ethnic basis here indicated, there was grafted, it would seem, at a very early period, a second, probably Turanian, element, which very importantly affected the character and composition of the people. The *Burbur* or *Akkad*, who are found to have been a principal tribe under the early kings, are connected by name, religion, and in some degree by language, with an important people of Armenia, called *Burbur* and *Urarda*, the Alarodians (apparently) of Herodotus.[6] It has been conjectured that this race at a very remote date descended upon the plain country, conquering the original Cushite inhabitants, and by degrees blending with them, though the fusion remained incomplete to the time of Abraham. The language of the early inscriptions, though Cushite in its vocabulary, is Turanian in many points of its grammatical structure, as in its use of postpositions, particles, and pronominal suffixes; and it would seem, therefore, scarcely to admit of a doubt that the Cushites of Lower Babylon must in some way or other have become mixed with a Turanian people. The mode and time of the commixture are matters altogether beyond our knowledge. We can only note the fact as indicated by the phænomena, and form, or abstain from forming, as we please, hypotheses with respect to its accompanying circumstances.

Besides these two main constituents of the Chaldæan race, there is reason to believe that both a Semitic and an Arian element existed in the early population of the country. The subjects of the early kings are continually designated in the inscriptions by the title of *kiprat-arbat*, "the four nations," or *arba lisun*, "the four tongues." In Abraham's time, again, the league of four kings seems correspondent to a fourfold ethnic division, Cushite, Turanian, Semitic, and Arian, the chief authority and ethnic preponderance being with the Cushites.[7]

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[6] See an Essay by the same writer in the fourth volume of the same work, pp. 250-254 (1st edition).

[7] Chedor-laomer, by his leadership of the Elamites or Susianians, should be a Cushite; Tidal, king of nations, *i.e.* of

The language also of the early inscriptions is thought to contain traces of Semitic, and Arian influence; so that it is at least probable that the "four tongues" intended were not mere local dialects, but distinct languages, the representatives respectively of the four great families of human speech.

It would result from this review of the linguistic facts and other ethnic indications, that the Chaldæans were not a pure, but a very mixed people. Like the Romans in ancient, and the English in modern Europe, they were a "colluvio gentium omnium," a union of various races between which there was marked and violent contrast. It is now generally admitted that such races are among those which play the most distinguished part in the world's history, and most vitally affect its progress.

With respect to the name of Chaldæan, under which it has been customary to designate this mixed people, it is curious to find that in the native documents of the early period it does not occur at all. Indeed it first appears in the Assyrian inscriptions of the ninth century before our era, being then used as the name of the dominant race in the country about Babylon. Still, as Berosus, who cannot easily have been ignorant of the ancient appellation of his race, applies the term Chaldæan to the primitive people,[8] and, as Scripture assigns Ur to the Chaldees as early as the time of Abraham, we are entitled to assume that this term, whenever it came historically into use, is in fact no unfit designation for the early inhabitants of the country. Perhaps the most probable account of the origin of the word is, that it designates properly the inhabitants of the ancient capital, Ur or Hur—*Khaldi* being in the Burbur dialect the exact equivalent of *Hur*, which was the proper name of the Moon God, and Chaldæans being thus either "Moon-worshippers," or simply "inhabitants of the town dedicated to, and called after, the Moon." Like the term "Babylonian," it would at first have designated simply the dwellers in the capital, and would subsequently have been extended to the people generally.

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the wandering tribes, should be a Scyth, or Turanian; Arioch recalls the term "Arian," while Amraphel is a name cast in a Semitic mould. See a note by Sir H. Rawlinson in the first volume of the author's *Herodotus*, vol. i. Essay vi. § 21, note [7] (second edition).

[8] Berosus, Fr. i. §§ 5, 6, 11, &c.

A different theory has of late years been usually maintained with respect to the Chaldæans. It has been supposed that they were a race entirely distinct from the early Babylonians—Armenians, Arabs, Kurds, or Sclaves—who came down from the north long after the historical period, and settled as the dominant race in the lower Mesopotamian valley.[9] Philological arguments of the weakest and most unsatisfactory character were confidently adduced in support of these views;[1] but they obtained acceptance chiefly on account of certain passages of Scripture, which were thought to imply that the Chaldæans first colonised Babylonia in the seventh or eighth century before Christ. The most important of these passages is in Isaiah. That prophet, in his denunciation of woe upon Tyre, says, according to our translation,—"Behold the land of the Chaldæans; *this people was not*, till the Assyrian founded it for them that dwell in the wilderness; they set up the towers thereof, they raised up the palaces thereof; and he brought it to ruin;"[2] or, according to Bishop Lowth, "Behold the land of the Chaldæans. This people was of no account. (The Assyrians founded it for the inhabitants of the desert, they raised the watch-towers, they set up the palaces thereof.) This people hath reduced her and shall reduce her to ruin." It was argued that we had here a plain declaration that, till a little before Isaiah's time, the Chaldæans had never existed as a nation. Then, it was said, they obtained for the first time fixed habitations from one of the Assyrian kings, who settled them in a city, probably Babylon. Shortly afterwards, following the analogy of so many Eastern races, they suddenly sprang up to power. Here another

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[9] Gesenius, *Comment. in Esaiam* xxiii. 13, and *Geschichte der Hebr. Sprache*, pp. 63, 64; Heeren, *Asiatic Nations*, vol. ii. p. 147; Niebuhr, *Lectures on Ancient History*, vol. i. p. 20, note; Winer, *Realwörterbuch*, vol. i. p. 218; Kitto, *Biblical Cyclopædia*, vol. i. p. 408, &c. Mr. Vaux (*Dict. of Antiquities*, vol. i. p. 601) with good reason questions the common opinion.

[1] As that Nebuchadnezzar *might* be the Sclavonic sentence *Nebye kad zenur tzar*, or "De cœlo missus dominus,"—that Merodach might be the Persian *mardak*, "homunculus," &c. (See Prichard's *Phys. Hist. of Mankind*, vol. iv. pp. 563-564.) A more refined argument was that of Gesenius, "that the construction of the names was according, not to Semitic, but to Medo-Persian principles;" but, being based upon pure conjectures as to the possible etymology of the words, it was really worthless.

[2] Isaiah xxiii. 13.

passage of Scripture was thought to have an important bearing on their history. "Lo! I *raise up* the Chaldæans," says Habakkuk, "that bitter and hasty nation, which shall march through the breadth of the land to possess the dwelling places that are not theirs. They are terrible and dreadful; their judgment and their dignity shall proceed of themselves; their horses also are swifter than the leopards, and are more fierce than the evening wolves: and their horsemen shall spread themselves, and their horsemen shall come from far; they shall fly as an eagle that hasteth to eat; they shall come all for violence; their faces shall nip as the east wind, and they shall gather the captivity as the sand. And they shall scoff at the kings, and the princes shall be a scorn unto them; they shall deride every stronghold; they shall heap dust and take it."[3] The Chaldæans, recent occupants of Lower Mesopotamia, and there only a dominant race, like the Normans in England or the Lombards in North Italy, were, on a sudden, "raised up"—elevated from their low estate of Assyrian colonists to the conquering people which they became under Nebuchadnezzar.

Such was the theory, originally advanced by Gesenius, which, variously modified by other writers, held its ground on the whole as the established view, until the recent cuneiform discoveries. It was, from the first, a theory full of difficulty. The mention of the Chaldæans in Job,[4] and even in Genesis,[5] as a well-known people, was in contradiction to the supposed recent origin of the race. The explanation of the obscure passage in the 23rd chapter of Isaiah, on which the theory was mainly based, was at variance with other clearer passages of the same prophet. Babylon is called by Isaiah the "*daughter* of the Chaldæans,"[6] and is spoken of as an ancient city, long "the glory of kingdoms,"[7] the oppressor of nations, the power that "smote the people in wrath with a continual stroke."[8] She is "the lady of kingdoms,"[9] and "the beauty of the Chaldees' excellency."[1] The Chaldæans are thus in Isaiah, as elsewhere

[3] Habakkuk i. 6-10.
[4] Job i. 17.
[5] Gen. xi. 28 and 31.
[6] Isaiah xlvii. 1 and 5.
[7] Isaiah xiii. 19.
[8] Ibid. xiv. 6.
[9] Ibid. xlvii. 5.
[1] Ibid. xiii. 19.

generally in Scripture, the people of Babylonia, the term "Babylonians" not being used by him; Babylon is their chief city, not one which they have conquered and occupied, but their "daughter"—"the beauty of their excellency;" and so all the antiquity and glory which is assigned to Babylon belong necessarily in Isaiah's mind to the Chaldæans. The verse, therefore, in the 23rd chapter, on which so much has been built, can at most refer to some temporary depression of the Chaldæans, which made it a greater disgrace to Tyre that she should be conquered by them. Again, the theory of Gesenius took no account of the native historian, who is (next to Scripture) the best literary authority for the facts of Babylonian history. Berosus not only said nothing of any influx of an alien race into Babylonia shortly before the time of Nebuchadnezzar, but pointedly identified the Chaldæans of that period with the primitive people of the country. Nor can it be said that he would do this from national vanity, to avoid the confession of a conquest, for he admits no fewer than three conquests of Babylon, a Median, an Arabian, and an Assyrian.[2] Thus, even apart from the monuments, the theory in question would be untenable. It really originated in linguistic speculations,[3] which turn out to have been altogether mistaken.

The joint authority of Scripture and of Berosus will probably be accepted as sufficient to justify the adoption of a term which, if not strictly correct, is yet familiar to us, and which will conveniently serve to distinguish the primitive monarchy, whose chief seats were in Chaldæa Proper (or the tract immediately bordering upon the Persian Gulf), from the later Babylonian Empire, which had its head-quarters further to the north. The people of this first kingdom will therefore be called Chaldæans, although there is no evidence that they applied the name to themselves, or that it was even known to them in primitive times.

The general character of this remarkable people will best

[2] Berosus, Fr. 11 and 12.

[3] See Niebuhr, *Lectures on Ancient History*, vol. i. p. 20, note; and Prichard, *Physical History of Mankind*, vol. iv. pp. 563, 564.

appear from the account, presently to be given, of their manners, their mode of life, their arts, their science, their religion, and their history. It is not convenient to forestal in this place the results of almost all our coming inquiries. Suffice it to observe that, though possessed of not many natural advantages, the Chaldæan people exhibited a fertility of invention, a genius, and an energy, which place them high in the scale of nations, and more especially in the list of those descended from a Hamitic stock. For the last 3000 years the world has been mainly indebted for its advancement to the Semitic and Indo-European races; but it was otherwise in the first ages. Egypt and Babylon—Mizraim and Nimrod—both descendants of Ham—led the way, and acted as the pioneers of mankind in the various untrodden fields of art, literature, and science. Alphabetic writing, astronomy, history, chronology, architecture, plastic art, sculpture, navigation, agriculture, textile industry, seem, all of them, to have had their origin in one or other of these two countries. The beginnings may have been often humble enough. We may laugh at the rude picture-writing, the uncouth brick pyramid, the coarse fabric, the homely and ill-shapen instruments, as they present themselves to our notice in the remains of these ancient nations; but they are really worthier of our admiration than of our ridicule. The first inventors of any art are among the greatest benefactors of their race; and the bold step which they take from the unknown to the known, from blank ignorance to discovery, is equal to many steps of subsequent progress. "The commencement," says Aristotle, "is more than half of the whole."[4] This is a sound judgment; and it will be well that we should bear it in mind during the review, on which we are about to enter, of the language, writing, useful and ornamental art, science, and literature of the Chaldæans. "The child is father of the man," both in the individual and the species; and the human race at the present day lies under infinite obligations to the genius and industry of early ages.

[4] Arist. *Eth. Nic.* i. 7, ad fin.

CHAPTER IV.

LANGUAGE AND WRITING.

"Γράμματα καὶ γλῶσσα Χαλδαίων."—Dan. i. 4. (Sept. vers.)

It was noted in the preceding chapter that Chaldæa, in the earliest times to which we can go back, seems to have been inhabited by four principal tribes. The early kings are continually represented on the monuments as sovereigns over the *Kiprat-arbat*, or "Four Races." These "Four Races" are called sometimes the *Arba Lisun*, or "Four Tongues," whence we may conclude that they were distinguished from one another, among other differences, by a variety in their forms of speech. The extent and nature of the variety could not, of course, be determined merely from this expression; but the opinion of those who have most closely studied the subject appears to be that the differences were great and marked—the languages in fact belonging to the four great varieties of human speech—the Hamitic, Semitic, Arian, and Turanian.

The language which the early inscriptions have revealed to us is not, of course, composed equally of these four elements. It does, however, contain strong marks of admixture. It is predominantly Cushite in its vocabulary, Turanian in its structure. Its closest analogies are with such dialects as the *Mahra* of Arabia, the *Galla* and *Wolaitsa* of Abyssinia, and the ancient language of Egypt, but in certain cases it more resembles the Turkish, Tatar, and Magyar (Turanian) dialects; while in some it presents Semitic and in others Arian affinities. This will appear sufficiently from the following list:—

Dingir or *Dimir*, "God." Compare Turkish *Tengri*.

Atta, "father." Compare Turkish *atta*. *Etea* is "father" in the Wolaitsa (Abyssinian) dialect.

Sis, "brother." Compare Wolaitsa and Woratta *isha*.

Tur, "a youth," "a son." Compare the *tur-khan* of the Parthians (Turanians), who was the Crown Prince.
E, "a house." Compare ancient Egyptian *é*, and Turkish *ev*.
Ka, "a gate." Compare Turkish *kapi*.
Kharran, "a road." Compare Galla *kara*.
Huru, "a town." Compare Heb. עיר.
Ar, "a river." Compare Heb. נהר, Arab. *nahr*.
Gabri, "a mountain." Compare Arabic *jabal*.
Ki, "the earth."
Kingi, "a country."
San, "the sun."
Kha, "a fish" (?).
Kurra, "a horse." Compare Arabic *gurra*.
Guski, "gold." Compare Galla *werke*. *Guski* means also "red" and "the evening."
Babar, "silver," "white," "the morning." Compare Agau *ber*, Tigre *burrur*.
Zabar, "copper." Compare Arabic *sifr*.
Hurud, "iron." Compare Arabic *hadid*.
Zakad, "the head." Compare Gonga *toko*.
Kat, "the hand." Compare Gonga *kiso*.
Si, "the eye."
Pi, "the ear." Compare Magyar *fül*.
Gula, "great." Compare Galla *guda*.
Tura, "little." Compare Gonga *tu* and Galla *tina*.
Kelga, "powerful."
Ginn, "first."
Mis, "many." Compare Agau *mineh* or *meneh*.
Gar, "to do."
Egir, "after." Compare Hhamara (Abyssinian) *igria*.

The grammar of this language is still but very little known. The conjugations of verbs are said to be very intricate and difficult, a great variety of verbal forms being obtained from the same root, as in Hebrew, by means of preformatives. Number and person in the verbs are marked by suffixes—the third person singular (masculine) by *bi* (compare Gonga *bi*, "he"), or *ani* (compare Galla *enni*, "he"), the third person plural by *bi-nini*.

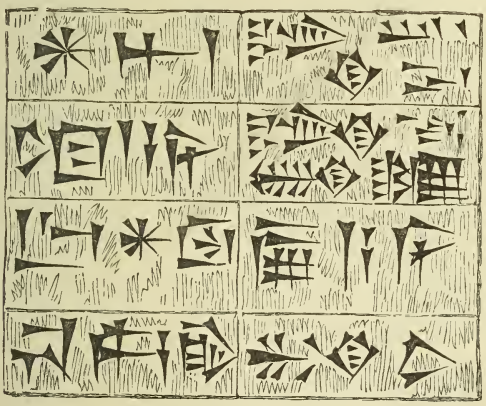
The accusative case in nouns is marked by a postposition, *ku*, as in Hindustani. The plural of pronouns and substantives is formed sometimes by reduplication. Thus *ni* is "him," while *nini* is "them;" and *Chanaan*, *Yavnan*, *Libnan*, seem to be plural forms from *Chna*, *Yavan*, and *Liban*.

A curious anomaly occurs in the declension of pronouns.[1] When accompanied by the preposition *kita*, "with," there is a *tmesis* of the preposition, and the pronouns are placed between its first and second syllable; e.g. *ni*, "him"—*ki-ni-ta*, "with him." This takes place in every number and person, as the following scheme will show:—

	1st person.	2nd person.	3rd person.
Sing.	*ki-mu-ta*	*ki-zu-ta*	*ki-ni-ta*
	(with me)	(with thee)	(with him)
Plur.	*ki-mi-ta*	*ki-zu-nini-ta*	*ki-nini-ta*
	(with us)	(with you)	(with them).

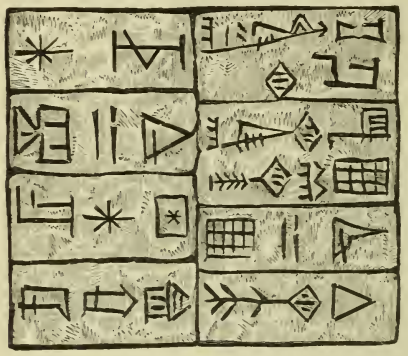
N.B.—The formation of the second person plural deserves attention. The word *zu-nini* is, clearly, composed of the two elements, *zu*, "thee," and *nini*, "them"—so that instead of having a word for "you," the Chaldæans employed for it the periphrasis "thee-them"! There is, I believe, no known language which presents a parallel anomaly.

Such are the chief known features of this interesting but difficult form of speech. A specimen may now be given of the mode in which it was written. Among the earliest of the monuments hitherto discovered are a set of bricks bearing the following cuneiform inscription:—



[1] There is, I believe, a near parallel to this peculiarity in the Ostiak. [It has been compared with our own use of such an expression as "to us-ward;" but here "to" and "ward" are really separate prepositions, both having the same meaning, and the phrase is merely pleonastic. There is no reason to believe that *ki* and *ta* have separately the meaning of "with."]

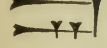
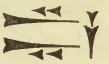
This inscription is explained to mean:—"Beltis, his lady, has caused Urukh (?), the pious chief, King of Hur, and King of the land (?) of the Akkad, to build a temple to her." In the same locality where it occurs,[2] bricks are also found bearing evidently the same inscription, but written in a different manner. Instead of the wedge and arrow-head being the elements of the writing, the whole is formed by straight lines of almost uniform thickness, and the impression seems to have been made by a single stamp.

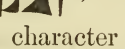


This mode of writing, which has been called without much reason "the hieratic,"[3] and of which we have but a small number of instances, has confirmed a conjecture, originally suggested by the early cuneiform writing itself, that the characters were at first the pictures of objects. In some cases the pictorial representation is very plain and palpable. For instance the "determinative" of a god—the sign, that is, which marks that the name of a god is about to follow, in this early rectilinear writing is , an eight-rayed star. The archaic cuneiform keeps closely to this type, merely changing the lines into wedges, thus , while the later cuneiform first unites the oblique wedges in one , and then omits them as unnecessary, retaining only the perpendicular and the horizontal ones . Again, the character representing the word "hand" is, in the rectilinear writing , in the archaic cuneiform , in the later cuneiform . The five lines (after-

[2] The bricks in question were found at Warka, the ancient *Huruk* or Erech. (See Loftus, *Chaldæa and Susiana*, p. 169.)

[3] See Oppert's *Expédition scientifique en Mésopotamie*, tom. ii. p. 62.

wards reduced to four) clearly represent the thumb and the four fingers. So the character ordinarily representing "a house"  is evidently formed from the original , the ground-plan of a house; and that denoting "the sun" , comes from , through , and , the original being the best representation that straight lines could give of the sun. In the case of *ka*, "a gate," we have not the original design; but we may see post, bars, and hinges in  the ordinary character.[4]

Another curious example of the pictorial origin of the letters is furnished by the character , which is the French *une*, the feminine of "one." This character may be traced up through several known forms to an original picture, which is thus given on a Koyunjik tablet  . It has been conjectured that the object here represented is "a sarcophagus."[5] But the true account seems to be that it is a *double-toothed comb*, a toilet article peculiar to women, and therefore one which might well be taken to express "a woman," or more generally the feminine gender. It is worth notice that the emblem is the very one still in use among the Lurs, in the mountains overhanging Babylonia.[6] And it is further remarkable that the phonetic power of the character here spoken of is *it* (or *yat*)—the ordinary Semitic feminine ending.

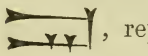
The original writing, it would therefore seem, was a picture-writing, as rude as that of the Mexicans. Objects were themselves represented, but coarsely and grotesquely—and, which is especially remarkable, without any curved lines. This would

[4] It has been conjectured that the ideograph for "king," which stands as the first character in the first and second compartments of the second column in the inscription given above (p. 63), is derived from a rude drawing of a bee, the Egyptian emblem of sovereignty. (See Ménant, *Briques de Babylone*, p. 20.)

[5] Oppert, tom. ii. p. 66.

[6] See the *Journal of the Geographical Society*, vol. ix. p. 58, where, in speaking of the devices on the tombs of the Lurs, Sir H. Rawlinson notes "the double-toothed comb" as the distinctive mark of the female sex.

seem to indicate that the system grew up where a hard material, probably stone, was alone used. The cuneiform writing arose when clay took the place of stone as a material. A small tool, with a square or triangular point,[7] impressed, by a series of distinct touches, the outline of the old pictured objects on the soft clay of tablets and bricks. In course of time simplifications took place. The less important wedges were omitted. One stroke took the place of two, or sometimes of three. In this way the old form of objects became, in all but a few cases, very indistinct; while generally it was lost altogether.

Originally each character had, it would seem, the phonetic power of the name borne by the object which it represented. But, as this name was different in the languages of the different tribes inhabiting the country, the same character came often to have several distinct phonetic values. For instance, the character  , representing "a house," had the phonetic values of *ê*, *bit*, and *mal*, because those were the words expressive of "a house," among the Hamitic, Semitic, and Arian populations respectively. Again, characters did not always retain their original phonetic powers, but abbreviated them. Thus the character which originally stood for *Assur*, "Assyria," came to have the sound of *as*, that denoting *bil*, "a lord," had in addition the sound of *bi*, and so on. Under these circumstances it is almost impossible to feel any certainty in regard to the phonetic representation of a single line of these old inscriptions. The meaning of each word may be well known; but the articulate sounds which were in the old times attached to them may be matter almost of conjecture.

The Chaldæan characters are of three kinds—letters proper, monograms, and determinatives. With regard to the letters proper, there is nothing particular to remark, except that they have almost always a syllabic force. The monograms represent in a brief way, by a wedge or a group of wedges, an entire word, often of two or three syllables, as Nebo, Babil, Merodach, &c.

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[7] Tools with a triangular point, made in ivory, apparently for employment in cuneiform writing, have been found at Babylon. (See Oppert, tom. ii. p. 63.)

The determinatives mark that the word which they accompany is a word of a certain class, as a god, a man, a country, a town, &c. These last, it is probable, were not sounded at all when the word was read. They served, in some degree, the purpose of our capital letters in the middle of sentences, but gave more exact notice of the nature of the coming word. Curiously enough, they are retained sometimes, where the word which they accompany has merely its phonetic power, as (generally) when the names of gods form a part of the names of monarchs.

It has been noticed already that the chief material on which the ancient Chaldæans wrote was moist clay, in the two forms of tablets and bricks. On bricks are found only royal inscriptions, having reference to the building in which the bricks were used, commonly designating its purpose, and giving the name and titles of the monarch who erected it.[8] The inscription does not occupy the whole brick, but a square or rectangular space towards its centre. It is in some cases stamped, in some impressed with a tool. The writing—as in all cuneiform inscriptions, excepting those upon seals—is from left to right, and the lines are carefully separated from one another. Some specimens have been already given.[9]

The tablets of the Chaldæans are among the most remarkable of their remains, and will probably one day throw great additional light on the manners and customs, the religion, and even, perhaps, the science and learning, of the people. They are small pieces of clay,[10] somewhat rudely shaped into a form

[8] See above, page 64, where the translation of an inscription is given. Other translations of the brick legends belonging to the same king are the following:—

1. On a brick from *Mugheir* (Ur):—"Urukh, king of Ur, is he who has built the temple of the Moon-God."

2. On a brick from the same:—"The Moon-God, his lord, has caused Urukh, king of Ur, to build a temple to him, and has caused him to build the enceinte of Ur."

3. On a brick from the same:—"The Moon-God, brother's son (?) of Anu, and eldest son of Belus, his lord, has caused Urukh, the pious chief, king of Ur, to build the temple of *Tsingathu* (?), his holy place."

4. On a brick from *Senkareh*:—"The Sun-God, his lord, has caused Urukh, the pious chief, king of Ur, king of the land (?) of the Akkad, to build a temple to him."

5. On a brick from *Niffer*:—"Urukh, king of Ur, and king of the land (?) of the Akkad, who has built the temple of Belus."

[9] See above, pp. 63, 64.

[10] The size varies from an inch to four or five inches in length, the width being always less. The envelope is of very thin clay, and does not much add to the bulk.

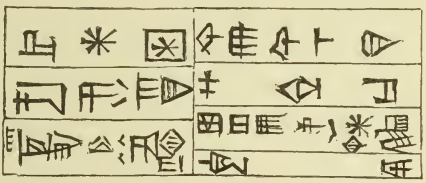
resembling a pillow, and thickly inscribed with cuneiform characters, which are sometimes accompanied by impressions of the cylindrical seals so common in the museums of Europe. The seals are rolled across the body of the document, as in the accompanying woodcut. Except where these impressions occur, the clay is commonly covered on both sides with minute writing.

Chaldæan tablet (after Layard).

What is most curious, however, is that the documents thus duly attested have in general been enveloped, after they were baked, in a cover of moist clay, upon which their contents have been again inscribed, so as to present externally a duplicate of the writing within; and the tablet in its cover has then been baked afresh. That this was the process employed is evident from the fact that the inner side of the envelope bears a cast, in relief, of the inscription beneath it. Probably the object in view was greater security—that if the external cover became illegible, or was tampered with, there might be a means of proving beyond a doubt what the document actually contained. The tablets in question have in a considerable number of cases been de-

cyphered; they are for the most part deeds, contracts, or engagements entered into by private persons and preserved among the archives of families.

Besides their writings on clay, the Chaldæans were in the habit, from very early times, of engraving inscriptions on gems. The signet cylinder of a very ancient king exhibits that archaic formation of letters which has been already noted as appearing upon some of the earliest bricks. That it belongs to the same period is evident, not only from the resemblance of the literal type,[1] but from the fact that the same king's name appears upon both. This signet inscription—so far as it has been hitherto decyphered—is read as follows:—"The signet of Urukh, the pious chief, king of Ur, ... High-Priest (?) of . . . . Niffer." Another similar relic, belonging to a son of this monarch, has the inscription, "To the manifestation of Nergal, king of Bit-Zida, of Zurgulla, for the saving of the life of Ilgi, the powerful hero, the king of Ur, ... , son of Urukh. . . . . May his name be preserved."[2] A third signet, which belongs to a later king in the series, bears the following legend: "——sin, the powerful chief, the king of Ur, the king of the Kiprat-arbat (or four races) . . . . . his seal." The cylinders, however, of this period are more usually without inscriptions, being often plain,[3] and often engraved with figures, but without a legend.



[1] We have only a representation of this inscription, the cylinder itself being lost. The representation will be found in Sir R. Ker Porter's *Travels*, vol. ii. plate 79, no. 6.

[2] I am indebted for the translation of this legend to Mr. George Smith, of the British Museum.

[3] *As. Soc. Journ.* vol. xv. pp. 272. 273.

CHAPTER V.

ARTS AND SCIENCES.

"Chaldæi cognitione astrorum sollertiaque ingeniorum antecellunt."
CIC. *de Div.* i. 41.

AMONG the arts which the first Ethiopic settlers on the shores of the Persian Gulf either brought with them from their former homes, or very early invented in their new abode, must undoubtedly have been the two whereby they were especially characterised in the time of their greatest power—architecture and agriculture. Chaldæa is not a country disposing men to nomadic habits. The productive powers of the soil would at once obtrude themselves on the notice of the new comers, and would tempt to cultivation and permanency of residence. If the immigrants came by sea, and settled first in the tract immediately bordering upon the gulf, as seems to have been the notion of Berosus,[1] their earliest abodes may have been of that simple character which can even now be witnessed in the Affej and Montefik marshes—that is to say, reed cabins, supported by the tall stems of the growing plants bent into arches, and walled with mats composed of flags or sedge.[2] Houses of this description last for forty or fifty years,[3] and would satisfy the ideas of a primitive race. When greater permanency began to be required, palm-beams might take the place of the reed supports, and wattles plastered with mud that of the rush mats; in this way

[1] Berosus, Fr. 1, § 3.

[2] Layard, *Nineveh and Babylon*, pp. 554, 555; Loftus, *Chaldæa and Susiana*, p. 91; *Journal of Geographical Society*, vol. xxvi. p. 137.

[3] "We were conducted to the *muthif* or reception-hut of the chief, which resembled the other habitations of the place, but was of gigantic size, forty feet long and eighteen feet high. It boasted the almost fabulous age for a reed building (if the Arabs might be credited) of no less than half a century, and appeared likely to last as long again." (Loftus, *Chaldæa and Susiana*, p. 92.)

habitations would soon be produced quite equal to those in which the bulk of mankind reside, even at the present day.

In process of time, however, a fresh want would be felt. Architecture, as has been well observed, has its origin, not in nature only, but in religion.[4] The common worship of God requires temples; and it is soon desired to give to these sacred edifices a grandeur, a dignity, and a permanency corresponding to the nature of the Being worshipped in them. Hence in most countries recourse is had to stone, as the material of greatest strength and durability; and by its means buildings are raised which seem almost to reach the heaven whereof they witness. In Babylonia, as it has been already observed,[5] this material was entirely wanting. Nowhere within the limits of the alluvium was a quarry to be found; and though at no very great distance, on the Arabian border, a coarse sandstone might have been obtained, yet in primitive times, before many canals were made, the difficulty of transporting this weighty substance across the soft and oozy soil of the plain would necessarily have prevented its adoption generally, or, indeed, anywhere, except in the immediate vicinity of the rocky region. Accordingly we find that stone was never adopted in Babylonia as a building material, except to an extremely small extent; and that the natives were forced, in its default, to seek for the grand edifices, which they desired to build, a different substance.

The earliest traditions,[6] and the existing remains of the earliest buildings, alike inform us that the material adopted was brick. An excellent clay is readily procurable in all parts of the alluvium; and this, when merely exposed to the intense heat of an Eastern sun for a sufficient period, or still more when kiln-dried, constitutes a very tolerable substitute for the stone employed by most nations. The baked bricks, even of the earliest times, are still sound and hard; while the sun-dried bricks, though they have often crumbled to dust or blended together in one solid earthen mass, yet sometimes retain their shape and original character almost unchanged, and offer a

[4] Stieglitz, quoted in Smith's *Dictionary of Greek and Roman Antiquities*, ad voc. Architecture. [5] See above, p. 38. [6] Gen. xi. 3.

stubborn resistance to the excavator.[7] In the most ancient of the Chaldæan edifices we occasionally find, as in the Bowariyeh ruin at Warka,[8] the entire structure composed of the inferior material; but the more ordinary practice is to construct the mass of the building in this way, and then to cover it completely with a facing of burnt brick, which sometimes extends to as much as ten feet in thickness. The burnt brick was thus made to protect the unburnt from the influence of the weather, while labour and fuel were greatly economised by the employment to so large an extent of the natural substance. The size and colour of the bricks vary. The general shape is square, or nearly so, while the thickness is, to modern ideas, disproportionately small; it is not, however, so small as in the bricks of the Romans. The earliest of the baked bricks hitherto discovered in Chaldæa are 11¼ inches square, and 2¼ inches thick,[9] while the Roman are often 15 inches square, and only an inch and a quarter thick.[1] The baked bricks of later date are of larger size than the earlier; they are commonly about 13 inches square, with a thickness of three inches.[2] The best quality of baked brick is of a yellowish-white tint, and very much resembles our Stourbridge or fire brick; another kind, extremely hard, but brittle, is of a blackish blue; a third, the coarsest of all, is slack-dried, and of a pale red. The earliest baked bricks are of this last colour.[3] The sun-dried bricks have even more variety of size than the baked ones. They are sometimes as large as 16 inches square and seven inches thick, sometimes as small as six inches square by two thick.[4] Occasionally, though not very often, bricks are found differing altogether in shape from those above described, being formed for special purposes. Of this kind are the triangular bricks used at the corners of walls, intended to give greater regularity to the angles than would otherwise be attained;[5] and the wedge-shaped bricks,

[7] *Journal of the Asiatic Society*, vol. xv. pp. 263 and 405.

[8] This ruin is carefully described by Mr. Loftus in his *Chaldæa and Susiana*, pp. 167-170.

[9] *Journal of the Asiatic Society*, vol. xv. p. 261.

[1] Wyttenbach, *Guide to the Roman Antiquities of Treves*, p. 42.

[2] Rich, *First Memoir*, p. 61.

[3] Loftus, p. 130.

[4] *Journal of Asiatic Society*, vol. xv. pp. 263, 264.

[5] Ibid. p. 266.

formed to be employed in arches, which were known and used by this primitive people.[6]

The modes of applying these materials to building purposes were various. Sometimes the crude and the burnt brick were used in alternate layers, each layer being several feet in thickness;[7] more commonly the crude brick was used (as already noticed) for the internal parts of the building, and a facing of burnt brick protected the whole from the weather. Occasionally the mass of an edifice was composed entirely of crude brick; but in such cases special precautions had to be taken to secure the stability of this comparatively frail material. In the first place, at intervals of four or five feet, a thick layer of reed matting was interposed along the whole extent of the building, which appears to have been intended to protect the earthy mass from disintegration, by its projection beyond the rest of the external surface. The readers of Herodotus are familiar with this feature, which (according to him) occurred in the massive walls whereby Babylon was surrounded.[8] If this was really the case, we may conclude that those walls were not composed of burnt brick, as he imagined, but of the sun-dried material. Reeds were never employed in buildings composed of burnt brick, being useless in such cases; where their impression is found, as not unfrequently happens, on bricks of this kind, the brick has been laid upon reed matting when in a soft state, and afterwards submitted to the action of fire. In edifices of crude brick, the reeds were no doubt of great service, and have enabled some buildings of the kind to endure to the present day. They are very strikingly conspicuous where they occur, since they stripe the whole building with continuous horizontal lines, having at a distance somewhat the effect of the courses of dark marble in an Italian structure of the Byzantine period.

Another characteristic of the edifices in which crude brick is thus largely employed, is the addition externally of solid and massive buttresses of the burnt material. These buttresses have

[6] Loftus, p. 133; *Journal of Asiatic Society*, l. s. c. The "moulded semicircular bricks" found at Warka (Loftus, p. 175) are probably of the Babylonian, not the Chaldæan, period.

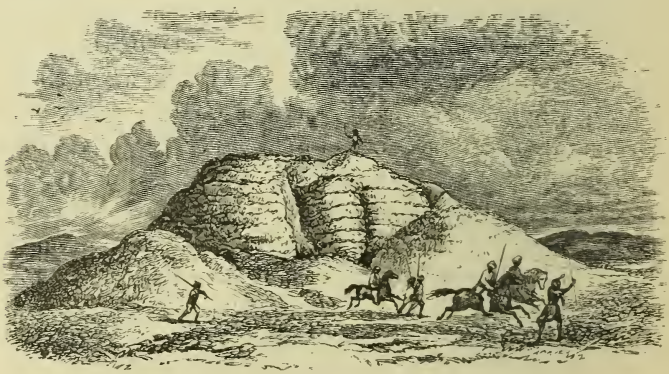
[7] *Journal of the Asiatic Society*, vol. xv. p. 263.

[8] Herod. i. 179.

sometimes a very considerable projection; they are broad, but not high, extending less than half way up the walls against which they are placed.

Two kinds of cement are used in the early structures. One is a coarse clay or mud, which is sometimes mixed with chopped straw; the other is bitumen. This last is of excellent quality, and the bricks which it unites adhere often so firmly together that they can with difficulty be separated.[9] As a general rule, in the early buildings, the crude brick is laid in mud, while the bitumen is used to cement together the burnt bricks.

These general remarks will receive their best illustration from a detailed description of the principal early edifices which recent researches in Lower Mesopotamia have revealed to us. These are for the most part temples; but in one or two cases the edifice explored is thought to have been a residence, so that the domestic architecture of the period may be regarded as known to us, at least in some degree. The temples most carefully examined hitherto are those at Warka, Mugheir, and Abu-Shahrein, the first of which was explored by Mr. Loftus in 1854, the second by Mr. Taylor in the same year, and the third by the same traveller in 1855.



Bowariyeh.

The Warka ruin is called by the natives Bowariyeh, which signifies "reed mats," in allusion to a peculiarity, already noticed,

[9] Loftus, *Chaldæa and Susiana*, p. 169.

in its construction. It is at once the most central and the loftiest ruin in the place. At first sight it appears to have been a cone or pyramid; but further examination proves that it was in reality a tower, 200 feet square at the base, built in two stories, the lower story being composed entirely of sun-dried bricks laid in mud, and protected at intervals of four or five feet by layers of reeds, while the upper one was composed of the same material, faced with burnt brick. Of the upper stage very little remains; and this little is of a later date than the inferior story, which bears marks of a very high antiquity. The sun-dried bricks whereof the lower story is composed, are "rudely moulded of very incoherent earth, mixed with fragments of pottery and freshwater shells," and vary in size and shape, being sometimes square, seven inches each way; sometimes oblong, nine inches by seven, and from three to three and a half inches thick.[1] The whole present height of the building is estimated at 100 feet above the level of the plain. Its summit, except where some slight remains of the second story constitute an interruption, is "perfectly flat," and probably continues very much in the condition in which it was when the lower stage was first built. This stage, being built of crude brick, was necessarily weak; it is therefore supported by four massive buttresses of baked brick, each placed exactly in the centre of one of the sides, and carried to about one-third of the height. Each buttress is nineteen feet high, six feet one inch wide, and seven and a half feet in depth; and each is divided down the middle by a receding space, one foot nine inches in width. All the bricks composing the buttresses are inscribed, and are very firmly cemented together with bitumen, in thick layers. The buttresses were entirely hidden under the mass of rubbish which had fallen from the building, chiefly from the upper story, and only became apparent when Mr. Loftus made his excavations.[2]

It is impossible to reconstruct the Bowariyeh ruin from the facts and measurements hitherto supplied to us; even the height

[1] Loftus, *Chaldæa and Susiana*, p. 168.
[2] See this traveller's account of his labours (*Chaldæa and Susiana*, pp. 167-170).

of the first story is at present uncertain;[3] and we have no means of so much as conjecturing the height of the second. The exact emplacement of the second upon the first is also doubtful, while the original mode of access is undiscovered; and thus the plan of the building is in many respects still defective. We only know that it was a square; that it had two stories at the least; and that its entire height above the plain considerably exceeded 100 feet.

Mugheir Temple.

The temple at Mugheir has been more accurately examined. On a mound or platform of some size, raised about twenty feet above the level of the plain, there stands a rectangular edifice, consisting at present of two stories, both of them ruined in parts, and buried to a considerable extent in piles of rubbish composed of their *débris*. The angles of the building exactly face the four

[3] The whole building is said to be 100 feet above the surface of the plain; but we are not told what is the height from the plain of the mound or platform upon which the temple stands; nor what height the fragment of the second story attains. All that can be gathered from Mr. Loftus is that the first story was *at least* 46 feet high.

cardinal points.[4] It is not a square, but a parallelogram, having two longer and two shorter sides. The longer sides front to the north-east and south-west respectively, and measure 198 feet; while the shorter sides, which face the north-west and the south-east, measure 133 feet. The present height of the basement story is 27 feet; but, allowing for the concealment of the lower part by the rubbish, and the destruction of the upper part by the hand of time, we may presume that the original height was little, if at all, short of 40 feet. The interior of this story is built of crude or sun-dried bricks of small size, laid in bitumen; but it is faced throughout with a wall, ten feet in thickness, composed of red kiln-dried bricks, likewise cemented with bitumen. This external wall is at once strengthened and diversified to the eye by a number of shallow buttresses or pilasters in the same material; of these there are nine, including the corner ones, on the longer, and six on the shorter sides. The width of the buttresses is eight feet, and their projection a little more than a foot. The walls and buttresses alike slope inwards at an angle of nine degrees. On the north-eastern side of the building there is a staircase nine feet wide, with sides or balustrades three feet wide, which leads up from the platform to the top of the first story. It has also been conjectured that there was a second or grand staircase on the south-east face, equal in width to the second story of the building, and thus occupying nearly the whole breadth of the structure on that side.[5] A number of narrow slits or air-holes are carried through the building from side to side; they penetrate alike the walls and buttresses, and must have tended to preserve the dryness of the structure.

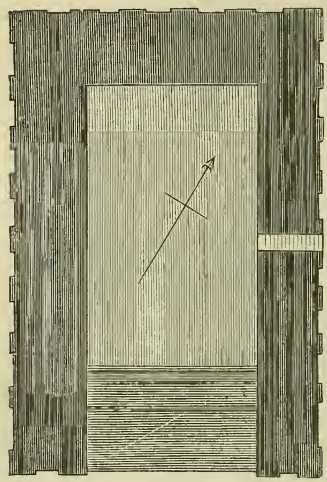
The second story is, like the first, a parallelogram, and not of very different proportions.[6] Its longer sides measure 119 feet, and its shorter ones 75 feet at the base. Its emplacement upon the first story is exact as respects the angles, but not central as regards the four sides. While it is removed from the south-

[4] Loftus, *Chaldæa and Susiana*, p. 128. According to Mr. Loftus, this emplacement "is observable in all edifices (temples?) of true Chaldæan origin."

[5] Loftus, *Chaldæa and Susiana*, p. 129.

[6] The proportions of the lower stage are almost exactly as 3 to 2. Those of the upper are as $3\frac{1}{15}$ to 2.

eastern edge a distance of 47 feet, from the north-western it is distant only 30 feet. From the two remaining sides its distance is apparently about 28 feet. The present height of the second story, including the rubbish upon its top, is 19 feet; but we may reasonably suppose that the original height was much greater. The material of which its inner structure is composed, seems to be chiefly (or wholly) partially-burnt brick, of a light red colour, laid in a cement composed of lime and ashes. This central mass is faced with kiln-dried bricks of large size and excellent quality, also laid, except on the north-west face,[7] in lime mortar. No buttresses and no staircase are traceable on this story; though it is possible that on the south-east side the grand staircase may have run the whole height of both stories.



Ground-plan of Mugheir Temple.

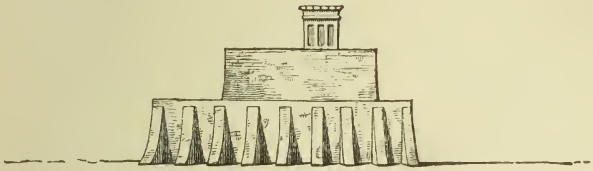
According to information received by Mr. Taylor from the Arabs of the vicinity,[8] there existed, less than half a century ago, some remains of a third story, on the summit of the rubbish which now crowns the second. This building is described as a room or chamber, and was probably the actual shrine of the god in whose honour the whole structure was erected. Mr. Taylor discovered a number of bricks or tiles glazed with a blue enamel, and also a number of large copper nails, at such a height in the rubbish which covers up much of the second story, that he thinks they could only have come from this upper chamber. The analogy of later Babylonian buildings, as of the Birs-Nimrud and the temple of Belus at Babylon,[9] confirms this view, and makes it probable that the early Chaldæan temple was

[7] On this side the material used is bitumen. (See Mr. Taylor's article in the *Journal of the Asiatic Society*, vol. xv. p. 261.)

[8] *Journal of the Asiatic Society*, vol. xv. p. 264.

[9] Herod. i. 181.

a building in three stages, of which the first and second were solid masses of brickwork, ascended by steps on the outside, while the third was a small house or chamber highly ornamented, containing the image and shrine of the god.



Mugheir Temple, restored.

In conclusion, it must be observed that only the lower story of the Mugheir temple exhibits the workmanship of the old or Chaldæan period. Clay cylinders found in the upper story inform us that in its present condition this story is the work of Nabonidus, the last of the Babylonian kings; and most of its bricks bear his stamp. Some, however, have the stamp of the same monarch who built the lower story;[1] and this is sufficient to show that the two stories are a part of the original design, and therefore that the idea of building in stages belongs to the first kingdom and to primitive times. There is no evidence to prove whether the original edifice had, or had not, a third story; since the chamber seen by the Arabs was no doubt a late Babylonian work. The third story of the accompanying sketch must therefore be regarded as conjectural.

It is not necessary for our present purpose to detain the reader with a minute description of the ancient temple at Abu-Shahrein. The general character of this building seems to have very closely resembled that of the Mugheir temple. Its angles fronted the cardinal points; it had two stories, and an ornamented chamber at the top; it was faced with burnt brick, and strengthened by buttresses; and in most other respects followed the type of the Mugheir edifice.[2] Its only very notable peculiarities are the

[1] *Journal of the Asiatic Society*, vol. xv. p. 264, note.

[2] See Mr. Taylor's description in the *Journal of the Asiatic Society*, vol. xv. pp. 405-408.

partial use of stone in the construction, and the occurrence of a species of pillar, very curiously composed. The artificial platform on which the temple stands is made of beaten clay, cased with a massive wall of sandstone and limestone, in some places twenty feet thick. There is also a stone, or rather marble, staircase which leads up from the platform to the summit of the first story, composed of small polished blocks, twenty-two inches long, thirteen broad, and four and a half thick. The bed of the staircase is made of sun-dried brick, and the marble was fastened to this substratum by copper bolts, some portion of which was found by Mr. Taylor still adhering to the blocks.[3] At the foot of the staircase there appear to have stood two columns, one on either side of it. The construction of these columns is very singular. A circular nucleus composed of sandstone slabs and small cylindrical pieces of marble disposed in alternate layers, was coated externally with coarse lime, mixed with small stones and pebbles, until by means of many successive layers the pillar had attained the desired bulk and thickness. Thus the stone and marble were entirely concealed under a thick coating of plaster; and a smoothness was given to the outer surface, which it would have otherwise been difficult to obtain.

The date of the Abu-Shahrein temple is thought to be considerably later than that of the other buildings above described;[4] and the pillars would seem to be a refinement on the simplicity of the earlier times. The use of stone is to be accounted for, not so much by the advance of architectural science, as by the near vicinity of the Arabian hills, from which that material could be readily derived.[5]

It is evident, that if the Chaldæan temples were of the character and construction which we have gathered from their remains, they could have possessed no great architectural beauty, though they may not have lacked a certain grandeur. In the dead level of Babylonia, an elevation even of 100 or 150 feet must have been impressive;[6] and the plain massive-

[3] *Journal of Asiatic Society*, vol. xv. p. 406, note.

[4] See below, chapter viii. p. 166.

[5] Supra, ch. i. p. 25.

[6] Mr. Loftus says—"I know of nothing more exciting or impressive than

ness of the structures no doubt added to their grand effect on the beholder. But there was singularly little in the buildings, architecturally viewed, to please the eye or gratify the sense of beauty. No edifices in the world—not even the Pyramids—are more deficient in external ornament. The buttresses and the air-holes, which alone break the flat uniformity of the walls, are intended simply for utility, and can scarcely be said to be much embellishment. If any efforts were made to delight by the ordinary resources of ornamental art, it seems clear that such efforts did not extend to the whole edifice, but were confined to the shrine itself—the actual abode of the god—the chamber which crowned the whole, and was alone, strictly speaking, "the temple."[7] Even here there is no reason to believe that the building had externally much beauty. No fragments of architraves or capitals, no sculptured ornaments of any kind, have been found among the heaps of rubbish in which Chaldæan monuments are three-parts buried. The ornaments which have been actually discovered, are such as suggest the idea of internal rather than external decoration; and they render it probable that such decoration was, at least in some cases, extremely rich. The copper nails and blue enamelled tiles found high up in the Mugheir mound, have been already noticed.[8] At Abu-Shahrein the ground about the basement of the second story was covered with small pieces of agate, alabaster, and marble, finely cut and polished, from half an inch to two inches long, and half an inch (or somewhat less) in breadth, each with a hole drilled through its back, containing often a fragment of a copper bolt. It was also strewn less thickly with small plates of pure gold, and with a number of gold-headed or gilt-headed nails,[9] used apparently to attach the gold plates to the internal plaster or wood-work. These fragments seem to attest the high

the first sight of one of these great Chaldæan piles, looming in solitary grandeur from the surrounding plains and marshes." (*Chaldæa and Susiana*, p. 113.)

[7] See Herod. i. 181, where the stages (πύργοι) are carefully distinguished from the temple (νηός) at the summit.

[8] See above, p. 78.

[9] *Journal of Asiatic Society*, vol. xv. p. 407.

ornamentation of the shrine in this instance, which we have no reason to regard as singular or in any way exceptional.

The Chaldæan remains which throw light upon the domestic architecture of the people are few and scanty. A small house was disinterred by Mr. Taylor at Mugheir, and the plan of some chambers was made out at Abu-Shahrein; but these are hitherto the only specimens which can be confidently assigned to the Chaldæan period. The house stood on a platform of sun-dried bricks, paved on the top with burnt bricks. It was built in the form of a cross, but with a good deal of irregularity, every wall being somewhat longer or shorter than the others. The material used in its construction was burnt brick, the outer layer imbedded in bitumen, and the remainder in a cement of mud. Externally the house was ornamented with perpendicular stepped recesses,[1] while internally the bricks had often a thin coating of gypsum or enamel, upon which characters were inscribed. The floors of the chambers were paved with burnt brick, laid in bitumen. Two of the doorways were arched, the arch extending through the whole thickness of the walls; it was semicircular, and was constructed with bricks made wedge-shaped for the purpose. A good deal of charred date-wood was found in the house, probably the remains of rafters which had supported the roof.[2]

Terra cotta cone. Actual size.

The chambers at Abu-Shahrein were of sun-dried brick, with an internal covering of fine plaster, ornamented with paint. In one the ornamentation consisted of a series of red, black, and white bands, three inches

[1] Loftus, *Chaldæa and Susiana*, p. 133. [2] *Journal of As. Soc.* vol. xv. pp. 265, 266.

in breadth; in another was represented, but very rudely, the figure of a man holding a bird on his wrist, with a smaller

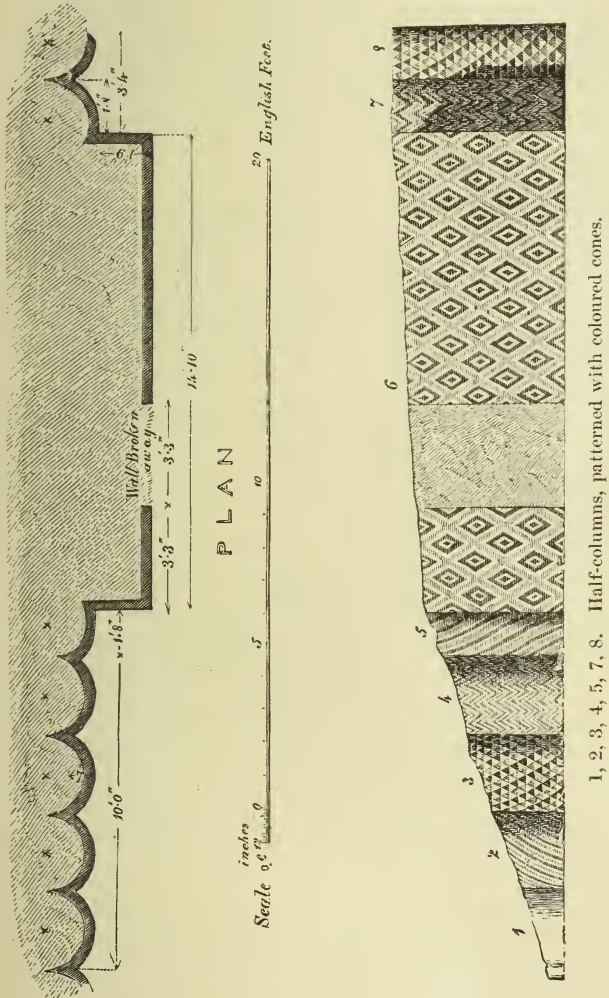
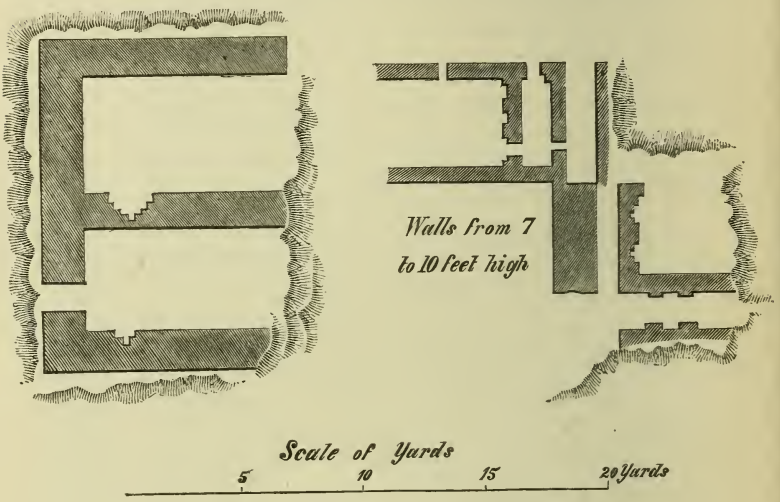


figure near him, in red paint.[3] The favourite external ornamentation for houses seems to have been by means of coloured

[3] *Journal of Asiatic Society*, vol. xv. pp. 408, 410.

cones in terra cotta, which were imbedded in moist mud or plaster, and arranged into a variety of patterns.[4]

But little can be said as to the plan on which houses were built. The walls were generally of vast thickness, the chambers long and narrow, with the outer doors opening directly into them. The rooms ordinarily led into one another, passages being rarely found. Squared recesses, sometimes stepped or



Ground-plan of chambers excavated at Abu-Shahrein.

dentated, were common in the rooms; and in the arrangement of these something of symmetry is observable, as they frequently correspond to or face each other. The roofs were probably either flat—beams of palm-wood being stretched across from wall to wall[5]—or else arched with brick.[6] No indication

[4] Loftus, *Chaldæa and Susiana*, pp. 188, 189. The building discovered by Mr. Loftus (from which the representation on p. 83 is taken) was at Warka, and therefore might perhaps not be *Chaldæan*. The vast number of similar cones, however, which occur at Abu-Shahrein (*Journal of As. Soc.* vol. xv. p. 411) and other purely Chaldæan ruins, sufficiently indicate the style of ornamentation to belong to the first empire.

[5] Mr. Taylor found remnants of these at Mugheir. (*Journal of As. Soc.* vol. xv. p. 266.)

[6] Mr. Loftus believes that Chaldæan buildings were usually roofed in this way. (*Chaldæa and Susiana*, pp. 182, 183.) Mr. Taylor also believes that some of the chambers which he excavated must have been domed. (*Journal of As. Soc.* vol. xv. p. 411.)

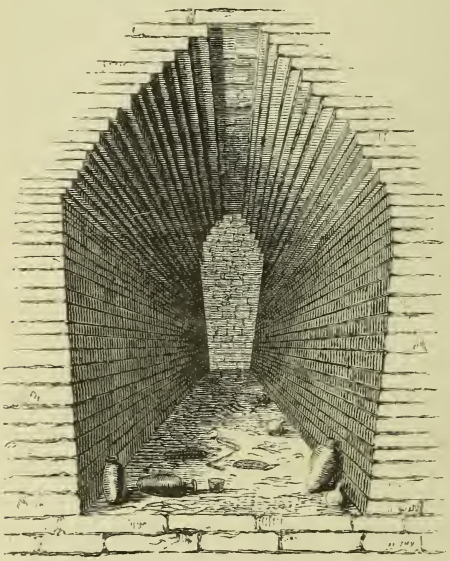
of windows has been found as yet; but still it is thought that the chambers were lighted by them,[7] only they were placed high, near the ceiling or roof, and thus do not appear in the existing ruins, which consist merely of the lower portion of walls, seldom exceeding the height of seven or eight feet. The doorways, both outer and inner, are towards the sides rather than in the centre of the apartments—a feature common to Chaldæan with Assyrian buildings.

Next to their edifices, the most remarkable of the remains which the Chaldæans have left to after-ages, are their burial-places. While ancient tombs are of very rare occurrence in Assyria and Upper Babylonia, Chaldæa Proper abounds with them. It has been conjectured, with some show of reason, that the Assyrians, in the time of their power, may have made the sacred land of Chaldæa the general depository of their dead,[8] much in the same way as the Persians even now use Kerbela and Nedjif or Meshed Ali as special cemetery cities, to which thousands of corpses are brought annually.[9] At any rate, the quantity of human relics accumulated upon certain Chaldæan sites is enormous, and seems to be quite beyond what the mere population of the surrounding district could furnish. At Warka, for instance, excepting the triangular space between the three principal ruins, the whole remainder of the platform, the whole space within the walls, and an unknown extent of desert beyond them, are everywhere filled with human bones and sepulchres.[1] In places coffins are piled upon coffins, certainly to the depth of 30, probably to the depth of 60 feet; and for miles on every side of the ruins the traveller walks upon a soil teeming with the relics of ancient, and now probably extinct, races. Sometimes these relics manifestly belong to a number of distinct and widely separate eras; but there are places where it is otherwise. However we may account for it—and no account has been yet given which is altogether satisfactory—it seems clear, from the comparative homogeneousness of the remains in some places, that they belong to a single race, and if not to a single period,

[7] Loftus, p. 182. [8] Ibid. p. 199. [9] Ibid. pp. 54 and 65. [1] Ibid. p. 199.

at any rate to only two, or, at the most, three distinct periods, so that it is no longer very difficult to distinguish the more ancient from the later relics.[2] Such is the character of the remains at Mugheir, which are thought to contain nothing of later date than the close of the Babylonian period, B.C. 538;[3] and such is, still more remarkably, the character of the ruins at Abu-Shahrein and Tel-el-Lahm, which seem to be entirely, or almost entirely, Chaldæan. In the following account of the coffins and mode of burial employed by the early Chaldæans, examples will be drawn from these places only; since otherwise we should be liable to confound together the productions of very different ages and peoples.

The tombs to which an archaic character most certainly attaches are of three kinds—brick vaults, clay coffins shaped like a dish-cover, and coffins in the same material, formed of two large jars placed mouth to mouth, and cemented together with bitumen. The brick vaults are found chiefly at Mugheir. They are seven feet long, three feet seven inches broad, and five feet high, composed of sun-dried bricks imbedded in mud, and exhibit a very remarkable form and construction of the arch. The side walls of the vaults slope outwards as they ascend; and the arch is formed, like those in Egyptian buildings and



Brick vault at Mugheir.

[2] Position of the relics *in situ*, character of the tomb or coffin, and apparent antiquity, or the reverse, of the enclosed vessels and ornaments, will commonly determine the age without much uncertainty. [3] Loftus, p. 134.

Scythian tombs,[4] by each successive layer of bricks, from the point where the arch begins, a little overlapping the last, till the two sides of the roof are brought so near together that the aperture may be closed by a single brick. The floor of the vaults was paved with brick similar to that used for the roof and sides; on this floor was commonly spread a matting of reeds, and the body was laid upon the matting. It was commonly turned on its left side, the right arm falling towards the left, and the fingers resting on the edge of a copper bowl, usually placed on the palm of the left hand. The head was pillowed on a single sun-dried brick. Various articles of ornament and use were interred with each body, which will be more particularly described hereafter. Food seems often to have been placed in the tombs, and jars or other drinking vessels are universal. The brick vaults appear to have been family sepulchres; they have often received three or four bodies, and in one case a single vault contained eleven skeletons.[5]

The clay coffins, shaped like a dish-cover, are among the most curious of the sepulchral remains of antiquity. On a platform of sun-dried brick is laid a mat, exactly similar to those in common use among the Arabs of the country at the present day; and hereon lies the skeleton, disposed as in the brick vaults, and surrounded by utensils and ornaments. Mat, skeleton, and utensils are then concealed by a huge cover in burnt clay, formed of a single piece, which is commonly seven feet long, two or three feet high, and two feet and a half broad at the bottom. It is rarely that modern potters produce articles of half the size. Externally the covers have commonly some slight ornament, such as rims and shallow indentations, as represented in the sketch overleaf (No. 1). Internally they are plain. Not more than two skeletons have ever been found under a single cover; and in these cases they were the skeletons of a male and a female. Children were interred separately, under covers about half the size of those for adults. Tombs of this kind commonly

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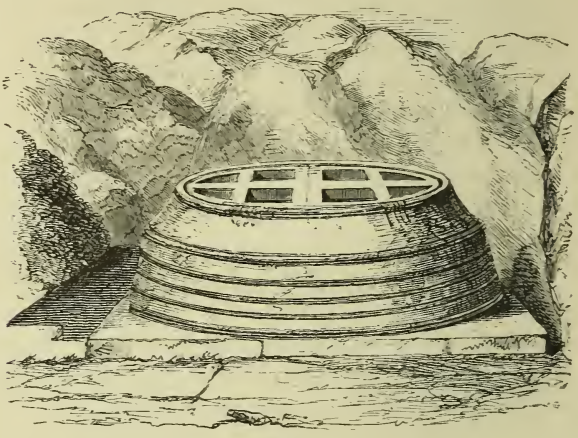
[4] See the author's *Herodotus*, vol. iii. p. 61.
[5] *Journal of the Asiatic Society*, vol. xv. pp. 271-274.

occur at some considerable depth. None were discovered at Mugheir nearer the surface than seven or eight feet.[6]

No. 1.



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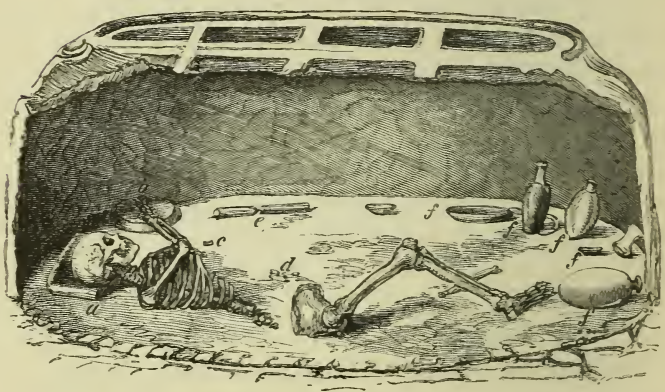


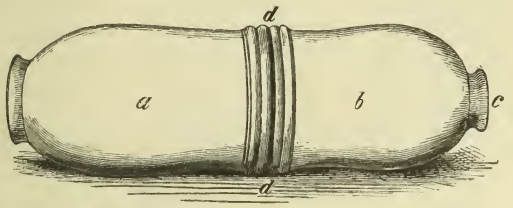
Chaldæan dish-cover tombs.

a. Sun-dried brick under head.
b. Copper bowl.
c. Small cylinder of meteoric stone; remains of thread going round arm-bone.
d. Pieces of cylindrical meteoric stone.
e. Pieces of bamboo.
f. Jars and utensils for food and water, made of baked clay; remains of date-stones in the shallow dish.

The third kind of tomb, common both at Mugheir and at Tel-el-Lahm,[7] is almost as eccentric as the preceding. Two large

[6] *Journal of the Asiatic Society*, vol. xv. p. 269. [7] Ibid. pp. 413, 414.

open-mouthed jars (*a* and *b*), shaped like the largest of the water-jars at present in use at Baghdad, are taken, and the body is disposed inside them with the usual accompaniments of dishes, vases, and ornaments. The jars average from two and a half feet to three feet in depth, and have a diameter of about two feet; so that they would readily contain a full-sized corpse if it was slightly bent at the knees. Sometimes the two jars are of equal size, and are simply united at their mouths by a layer of bitumen (*d d*);

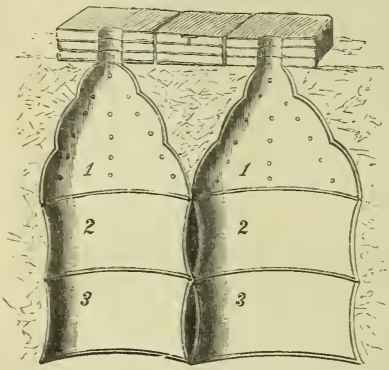


Chaldæan jar-coffin.

but more commonly one is slightly larger than the other, and the smaller mouth is inserted into the larger one for a depth of three or four inches, while a coating of bitumen is still applied externally at the juncture. In each coffin there is an air-hole at one extremity (*c*), to allow the escape of the gases generated during decomposition.

Besides the coffins themselves, some other curious features are found in the burial-places. The dead are commonly buried, not underneath the natural surface of the ground, but in extensive artificial mounds, each mound containing a vast number of coffins. The coffins are arranged side by side, often in several layers; and occasionally strips of masonry, crossing each other at right angles, separate the sets of coffins from their neighbours. The surface of the mounds is sometimes paved with brick; and a similar pavement often separates the layers of coffins one from another. But the most remarkable feature in the tomb-mounds is their system of drainage. Long shafts of baked clay extend from the surface of the mound to its base, composed of a succession of rings two feet in diameter, and about a foot and a half in breadth, joined together by thin layers of bitumen. To give the rings additional strength, the sides have a slight concave curve (see woodcut, 2 and 3); and, still further to resist external pressure, the shafts are filled from bottom to

top with a loose mass of broken pottery. At the top the shaft contracts rapidly by means of a ring of a peculiar shape (see woodcut, 1); and above this ring are a series of perforated bricks leading up to the top of the mound, the surface of which is so arranged as to conduct the rain-water into these orifices. For the still more effectual drainage of the mound, the top-piece of the shaft immediately below the perforated bricks, and also the first rings, are full of small holes to admit any stray moisture; and besides this, for the space of a foot every way, the shafts are surrounded with broken pottery, so that the real diameter of each drain is as much as four feet.[8] By these arrangements the piles have been kept perfectly dry; and the consequence is the preservation, to the present day, not only of the utensils and ornaments placed in the tombs, but of the very skeletons themselves, which are seen perfect on opening a tomb, though they generally crumble to dust at the first touch.[9]



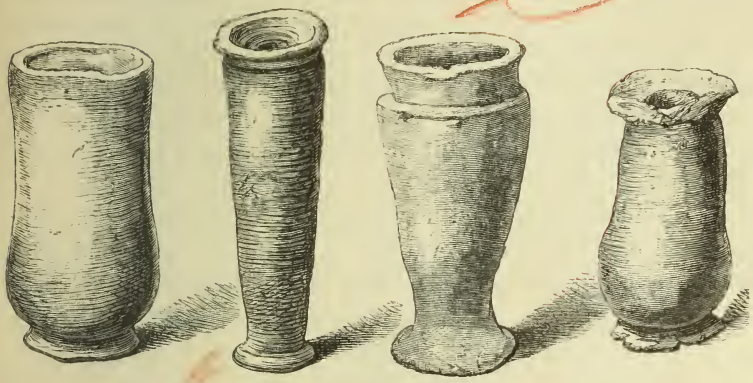
Section of drain.

The skill of the Chaldæans as potters has received considerable illustration in the foregoing pages. No ordinary ingenuity was needed to model and bake the large vases, and still larger covers, which were the ordinary receptacles of the Chaldæan dead. The rings and top-pieces of the drainage-shafts also exhibit much skill and knowledge of principles. Hitherto, however, the reader has not been brought into contact with any

[8] *Journal of the Asiatic Society*, vol. xv. pp. 268, 269.

[9] Ibid. p. 272; Loftus, p. 210. Mr. Taylor, however, qualifies this latter statement. "Directly on opening these covers," he says, "were I to attempt to touch the skulls or bones, they would fall into dust almost immediately; but I found, on exposing them for a few days to the air, that *they become quite hard*, and could be handled with impunity." It is to be regretted that Mr. Taylor did not send any of the skulls, when thus hardened, to England, as their examination would have been important towards determining the ethnic character of the race.

specimens of Chaldæan fictile art which can be regarded as exhibiting elegance of form, or, indeed, any sense of beauty as



Chaldæan vases of the first period.

distinguished from utility. Such specimens are, in fact, somewhat scarce, but they are not wholly wanting. Among the vases and drinking-vessels with which the Chaldæan tombs

Chaldæan vases, drinking-vessels, and amphora of the second period.

abound, while the majority are characterised by a certain rudeness both of shape and material,[10] we occasionally meet

[10] The vases represented in the first of the above cuts are in a coarse clay, mixed with chopped straw, which sometimes appears upon the surface.

with specimens of a higher character, which would not shrink from a comparison with the ordinary productions of Greek fictile art. A number of these are represented in the second woodcut on the preceding page which exhibits several forms not hitherto published—some taken from drawings by Mr. Churchill, the artist who accompanied Mr. Loftus on his first journey; others drawn for the present work from vases now in the British Museum.

It is evident that, while the vases of the first group are roughly moulded by the hand, the vases and lamps of the second have been carefully shaped by the aid of the potter's wheel. These

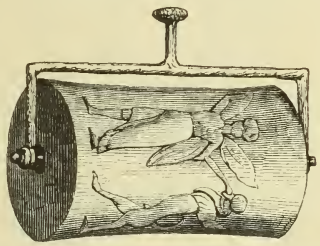
Chaldæan lamps of the second period.

last are formed of a far finer clay than the earlier specimens, and have sometimes a slight glaze upon them, which adds much to their beauty.

In a few instances the works of the Chaldæans in this material belong to mimetic art, of which they are rude but interesting specimens. Some of the primitive graves at Senkareh yielded tablets of baked clay, on which were represented, in low relief, sometimes single figures of men, sometimes groups, sometimes men in combination with animals. A scene in which a lion is disturbed in his feast off a bullock, by a man armed with a club and a mace or hatchet, possesses remarkable spirit, and, were it not for the strange drawing of the lion's uplifted leg, might be

regarded as a very creditable performance.[11] In another, a lion is represented devouring a prostrate human being; while a third exhibits a pugilistic encounter after the most approved fashion of modern England![1] It is perhaps uncertain whether these tablets belong to the Chaldæan or to the Babylonian period; but on the whole their rudeness and simplicity favour the earlier rather than the later date.

The only other works having anything of an artistic character, that can be distinctly assigned to the primitive period, are a certain number of engraved cylinders, some of which are very curious. It is clearly established that the cylinders in question, which are generally of serpentine, meteoric stone, jasper, chalcedony, or other similar substance, were the seals or signets of their possessors, who impressed them upon the moist clay which formed the ordinary material for writing.[2] They are round, or nearly so,[3] and measure from half-an-inch to three inches in length; ordinarily they are about one-third of their length in diameter. A hole is bored through the stone from end to end, so that it could be worn upon a string; and cylinders are found in some of the earliest tombs which have been worn round the wrist in this way.[4] In early times they may have been impressed by the hand; but afterwards it was common to place them upon a bronze or copper axis attached to a handle, by means of which they were rolled across the clay from one end to the other.[5] The cylinders are frequently unengraved, and this is most commonly their condition in the primitive tombs; but there is some very curious evidence, from which it appears that the



Seal cylinder on metal axis.

[11] See Loftus, *Chaldæa and Susiana*, p. 258. [1] Ibid. p. 257.

[2] Layard, *Nineveh and Babylon*, pp. 608, 609; Rawlinson's *Herodotus*, vol. i. p. 336; Birch's *Ancient Pottery*, vol. i. p. 114.

[3] Sometimes the sides are slightly concave, as in the above representation.

[4] *Journal of Asiatic Society*, vol. xv. p. 271.

[5] Mr. Layard found remains of the bronze in one specimen. (*Nineveh and Babylon*, p. 609.) The above representation gives the probable form of the bronze setting.

art of engraving them was really known and practised (though doubtless in rare instances) at a very early date. The signet cylinder of the monarch who founded the most ancient of the buildings at Mugheir, Warka, Senkareh, and Niffer, and who thus stands at the head of the monumental kings, was in the possession of Sir R. Porter; and though it is now lost, an engraving made from it is preserved in his 'Travels.'[6] The signet cylinder of this monarch's son has been recently recovered, and is now in the British Museum. We are entitled to conclude from the data

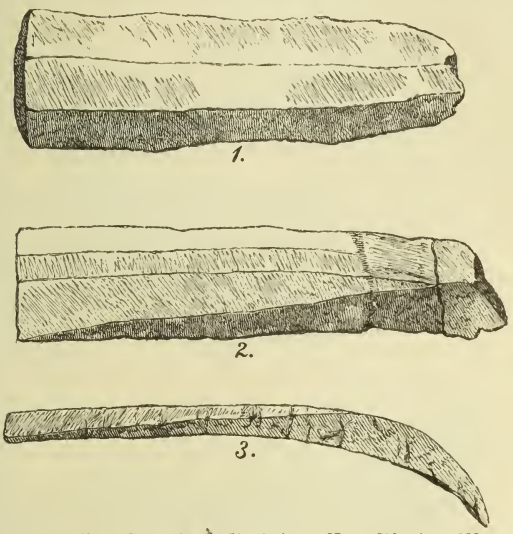
Signet cylinder of King Urukh.

thus in our possession that the art of cylinder-engraving had, even at this early period, made considerable progress. The letters of the inscriptions, which give the names of the kings and their titles, are indeed somewhat rudely formed, as they are on the stamped bricks of the period;[7] but the figures have been as well cut, and as flowingly traced, as those of a much later date. It was thought possible that the artist employed by Sir R. Porter had given a flattering representation of his original; but the newly recovered relic, known as the "cylinder of Ilgi," bears upon it figures of quite as great excellence; and we are thus led to the conclusion that both mechanical and artistic

[6] *Travels in Georgia, Persia*, &c., vol. ii. pl. 79, fig. 6. [7] See above, pp. 63, 64, 69.

skill had reached a very surprising degree of excellence at the most remote period to which the Chaldæan records carry us back.

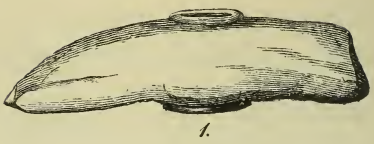
It increases the surprise which we naturally feel at the discovery of these relics to reflect upon the rudeness of the implements with which such results would seem to have been accomplished. In the primitive Chaldæan ruins, the implements which have been discovered are either in stone or bronze. Iron in the early times is seemingly unknown, and when it first appears is wrought into ornaments for the person.[8] Knives of flint or chert, stone hatchets, hammers, adzes, and nails, are common in the most ancient mounds, which contain also a number of clay models, the centres, as it is thought,[9] of moulds into which molten bronze was run, and also occasionally the bronze instruments themselves, as (in addition to spear-heads and arrow-heads) hammers, adzes, hatchets, knives, and sickles. It will be seen by the engraved representations that these instruments are one and all of a rude and coarse character. The flint and stone knives, axes, and hammers, which abound in all the true Chaldæan mounds, are somewhat more advanced indeed than



No. 1 and No. 2. Back view of flint knives. No. 3. Side view of No. 2.

[8] Bangles and rings. (See the *Journal of the Asiatic Society*, vol. xv. p. 415.)

[9] This view was taken by Mr. Vaux in a paper read by him before the Society of Antiquaries, January, 1860, which he has kindly put into my hands. It may be questioned, perhaps, whether these clay models are not rather the representatives of real weapons and implements, buried in their stead by relatives too poor to part with the originals.



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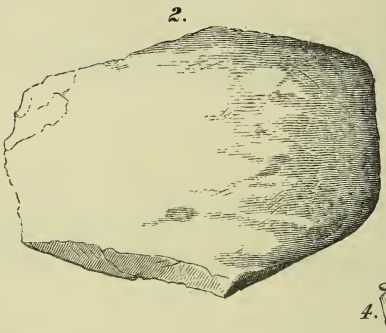
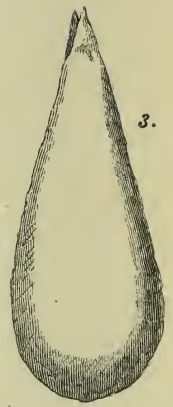


2.



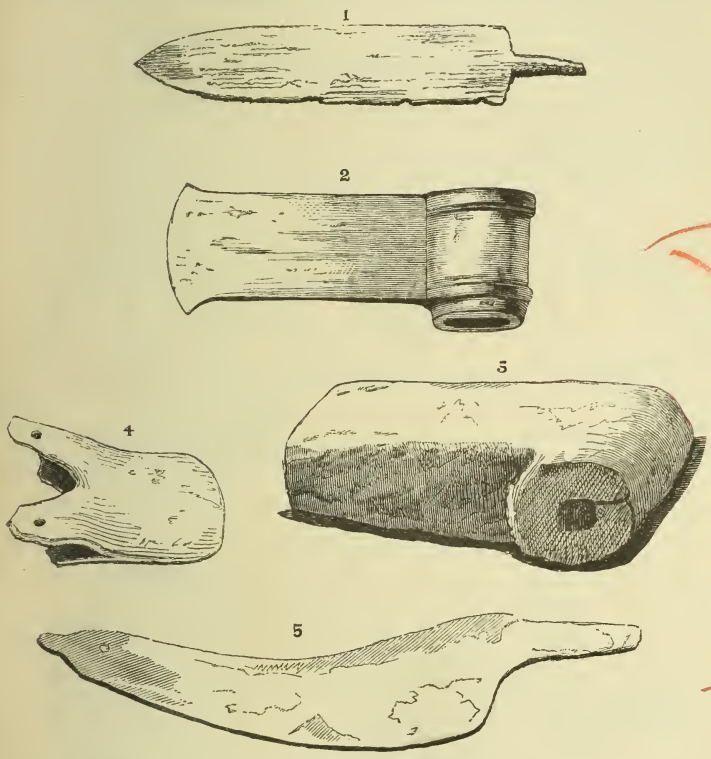
3.

4.

1. Stone hammer. 2. Stone hatchet. 3. Stone adze. 4. Stone nail.

Chaldæan bronze spear and arrow heads.

those very primitive implements which have been found in the drift; but they are of a workmanship at least as unskilled as that of the ordinary stone celts of Western and Northern Europe, which till the discoveries of M. Perthes were regarded as the



Bronze Implements.

1. Knife. 2. Hatchet. 3. Hammer. 4. Adze. 5. Sickle.

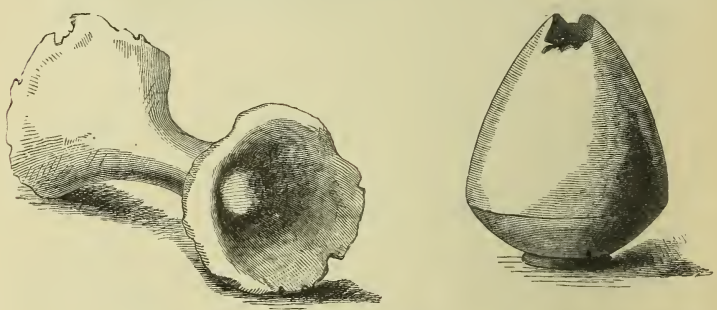
most ancient human remains in our quarter of the globe. They indicate some practical knowledge of the cleavage of silicious rocks, but they show no power of producing even such finish as the celts frequently exhibit. In one case only has a flint instrument been discovered perfectly regular in form, and presenting a sharp angular exactness. The instrument, which is figured here, is a sort of long parallelogram, round at

Flint Implement.

the back, and with a deep depression down its face. Its use is uncertain; but, according to a reasonable conjecture, it may have been designed for impressing characters upon the moist clay of tablets and cylinders —a purpose for which it is said to be excellently fitted.[10]

The metallurgy of the Chaldæans, though indicative of a higher state of civilization and a greater knowledge of the useful arts than their stone weapons, is still of a somewhat rude character, and indicates a nation but just emerging out of an almost barbaric simplicity. Metal seems to be scarce, and not many kinds are found. There is no silver, zinc, or platinum; but only gold, copper, tin, lead, and iron. Gold is found in beads, ear-rings, and other ornaments,[11] which are in some instances of a fashion that is not inelegant.[1] Copper occurs pure, but is more often hardened by means of an alloy of tin, whereby

Ear-rings.



Leaden pipe and jar.

it becomes bronze, and is rendered suitable for implements and weapons.[2] Lead is rare, occurring only in a very few specimens,

[10] *Journal of Asiatic Society*, vol. xv. p. 411.

[11] As fillets for the head. (Ibid. p. 273.)

[1] These ear-rings are given as Chaldæan, because they were found at Niffer among remains thought to be purely Chaldæan. At the same time it must be allowed that they very much resemble the Greek "Cupid ear-rings," of which there are so many in the British Museum.

[2] See above, pp. 96, 97.

as in one jar or bottle, and in what seems to be a portion of a pipe, brought by Mr. Loftus from Mugheir. Iron, as already observed, is extremely uncommon; and, when it occurs, is chiefly used for the rings and bangles which seem to have been among the favourite adornments of the people. Bronze is, however, even for these, the more common material. It is sometimes wrought into thin and elegant shapes, tapering to a point at either extremity; sometimes the form into which it is cast is coarse and massive, resembling a solid bar twisted into a rude

Bronze bangles.

circle. For all ordinary purposes of utility it is the common metal used. A bronze or copper bowl is found in almost every tomb; bronze bolts remain in the pieces of marble used for tesselating;[3] bronze rings sometimes strengthen the cones used for ornamenting walls;[4] bronze weapons and instruments are, as we have seen, common; and in the same material have been found chains, nails, toe and finger rings, armlets, bracelets, and fish-hooks.

No long or detailed account can be given of the textile fabrics of the ancient Chaldæans; but there is reason to believe that this was a branch of industry in which they particularly excelled. We know that as early as the time of Joshua a Babylonian garment had been imported into Palestine, and was of so rare a beauty as to attract the covetous regards of Achan,

[3] See the small woodcut on p. 81.

[4] See p. 83; where a representation of this mode of ornamenting walls is given; and for the use of bronze rings, see *Journal of the Asiatic Society*, vol. xv. p. 411.

in common with certain large masses of the precious metals.[5] The very ancient cylinder figured above,[6] must belong to a time at least five or six centuries earlier; upon it we observe flounced and fringed garments, delicately striped, and indicative apparently of an advanced state of textile manufacture. Recent researches do not throw much light on this subject. The frail materials of which human apparel is composed can only under peculiar circumstances resist the destructive power of thirty or forty centuries; and consequently we have but few traces of the actual fabrics in use among the primitive people. Pieces of *linen* are said to have been found attaching to some of the skeletons in the tombs;[7] and the sun-dried brick which supports the head is sometimes covered with the remains of a "tasselled cushion of tapestry;"[8] but otherwise we are without direct evidence either as to the material in use, or as to the character of the fabric. In later times Babylon was especially celebrated for its robes and its carpets.[9] Such evidence as we have would seem to make it probable that both manufactures had attained to considerable excellence in Chaldæan times.

The only sciences in which the early Chaldæans can at present be proved to have excelled are the cognate ones of arithmetic and astronomy. On the broad and monotonous plains of Lower Mesopotamia, where the earth has little upon it to suggest thought or please by variety, the "variegated heaven," ever changing with the hours and with the seasons, would early attract attention, while the clear sky, dry atmosphere, and level horizon would afford facilities for observations, so soon as the idea of them suggested itself to the minds of the inhabitants. The "Chaldæan learning" of a later age[1] appears to have been originated, in all its branches, by the primitive people; in whose language it continued to be written even in Semitic times.

We are informed by Simplicius that Callisthenes, who accompanied Alexander to Babylon, sent to Aristotle from that capital

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[5] Josh. vii. 21.
[6] See p. 94.
[7] *Journal of the Asiatic Society*, vol. xv. p. 271.
[8] Ibid. l. s. c.
[9] Arrian. *Exp. Alex.* vi. 29; Athenæus, *Deipnosoph.* v. p. 197.
[1] Dan. i. 4.

a series of astronomical observations, which he had found preserved there, extending back to a period of 1903 years from Alexander's conquest of the city.[2] Epigenes related that these observations were recorded upon tablets of baked clay,[3] which is quite in accordance with all that we know of the literary habits of the people. They must have extended, according to Simplicius, as far back as B.C. 2234, and would therefore seem to have been commenced and carried on for many centuries by the primitive Chaldæan people. We have no means of determining their exact nature or value, as none of them have been preserved to us: no doubt they were at first extremely simple; but we have every reason to conclude that they were of a real and substantial character. There is nothing fanciful, or (so to speak) astrological, in the early astronomy of the Babylonians. Their careful emplacement of their chief buildings,[4] which were probably used from the earliest times for astronomical purposes,[5] their invention of different kinds of dials,[6] and their division of the day into those hours which we still use,[7] are all solid, though not perhaps very brilliant, achievements. It was only in later times that the Chaldæans were fairly taxed with imposture and charlatanism; in the early ages they seem to have really deserved the eulogy bestowed on them by Cicero.[8]

It may have been the astronomical knowledge of the Chaldæans which gave them the confidence to adventure on important voyages. Scripture tells us of the later people, that "their cry was in the ships;"[9] and the early inscriptions not only make frequent mention of the "ships of Ur," but by

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[2] This passage has often been referred to, but rarely quoted. Simplicius argues that the earlier Greek writers on astronomy have less value than the later ones:—διὰ τὸ μήπω τὰς ὑπὸ Καλλισθένους ἐκ Βαβυλῶνος πεμφθείσας παρατηρήσεις ἀφικέσθαι εἰς τὴν Ἑλλάδα, τοῦ Ἀριστοτέλους τοῦτο ἐπισκήψαντος αὐτῷ· ἅστινας διηγεῖται ὁ Πορφύριος χιλίων ἐτῶν εἶναι καὶ ἐννεακοσίων τριῶν, μέχρι τὸν χρόνον Ἀλεξάνδρου τοῦ Μακέδονος σωζομένας.

[3] Plin. *H. N.* vii. 56. "Epigenes apud Babylonios DCCXX annorum observationes siderum *coctilibus laterculis* inscriptas docet."

[4] See above, p. 76.

[5] This is distinctly asserted of the great temple of Belus by Diodorus (ii. 9, § 4). The careful emplacement of the *earliest* temples makes it probable that they were applied to similar uses.

[6] Herod. ii. 109. [7] Ibid.

[8] See the passage prefixed as a motto to this chapter (supra, p. 70).

[9] Isaiah xliii. 14.

connecting these vessels with those of Ethiopia[1] seem to imply that they were navigated to considerable distances. Unfortunately we possess no materials from which to form any idea either of the make and character of the Chaldæan vessels, or of the nature of the trade in which they were employed. We may perhaps assume that at first they were either canoes hollowed out of a palm-trunk, or reed fabrics made water-tight by a coating of bitumen. The Chaldee trading operations lay, no doubt, chiefly in the Persian Gulf;[2] but it is quite possible that even in very early times they were not confined to this sheltered basin. The gold, which was so lavishly used in decoration,[3] could only have been obtained in the necessary quantities from Africa or India; and it is therefore probable that one, if not both, of these countries was visited by the Chaldæan traders.

Astronomical investigations could not be conducted without a fair proficiency in the science of number. It would be reasonable to conclude, from the admitted character of the Chaldæans as astronomers, that they were familiar with most arithmetical processes, even had we no evidence upon the subject. Evidence however, to a certain extent, does exist. On a tablet found at Senkareh, and belonging *probably* to an early period, a table of squares is given, correctly calculated from one to sixty.[4] The system of notation, which is here used, is very curious. Berosus[5] informs us that, in their computations of time, the Chaldæans employed an alternate sexagesimal and decimal notation, reckoning the years by the *soss*, the *ner*, and the *sar*—the *soss* being a term of 60 years, the *ner* one of 600, and the *sar* one of 3600 (or 60 *sosses*). It appears from the Senkareh monument, that they occasionally pursued the same practice in mere numerical calculations, as will be evident from the following extract:—

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[1] Sir H. Rawlinson in the *Journal of the Asiatic Soc.* vol. xxvii. p. 185.

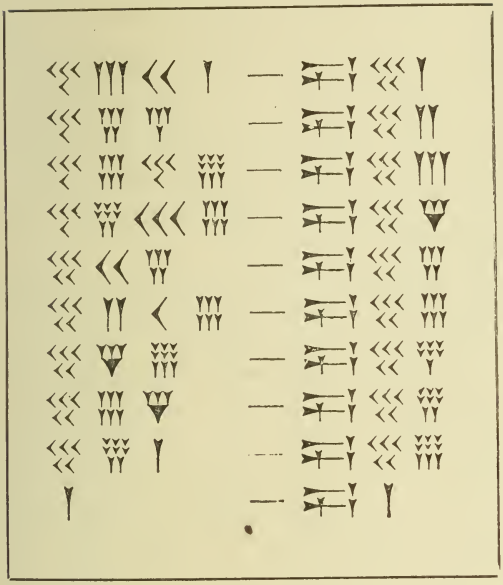
[2] See Heeren's *Asiatic Nations*, vol. ii. p. 220, E. T.

[3] Supra, p. 81.

[4] See *Journal of the Asiatic Soc.* vol. xv. p. 218; and compare Loftus's *Chaldæa and Susiana*, p. 256.

[5] Ap. Euseb. *Chron. Can.* i. 1. p. 5, ed. Mai.

Extract from Senkareh Table of Squares.



In Arabic numerals this table may be expressed as follows:—

Soss.	Units.			Soss.	Units.		
43	21	=	51^2	52	16	=	56^2
45	4	=	52^2	54	9	=	57^2
46	49	=	53^2	56	4	=	58^2
48	36	=	54^2	58	1	=	59^2
50	25	=	55^2	60	0	=	60^2

The calculation is in every case correct; and the notation is by means of two signs—the simple wedge 𒁹, and the arrowhead 𒌋; the wedge representing the unit, the soss (60), and the sar (3600), while the arrowhead expresses the decades of each series, or the numbers 10 and 600.[6] The notation is cumbrous, but scarcely more so than that of the Romans. It would be

[6] This is the *ner* of Berosus, which was a period of 600 years. Compare with this notation that of the Mexicans (Prescott, *History of the Conquest of Mexico*, vol. i. p. 91), where, besides the unit, the only numbers which had distinct signs were 20, 400, and 8000.

awkward to use, from the paucity in the number of signs, which could scarcely fail to give rise to confusion,—more especially as it does not appear that there was any way of expressing a cypher. It is not probable that at any time it was the notation in ordinary use. Numbers were commonly expressed in a manner not unlike the Roman, as will be seen by the subjoined table. One, ten, a hundred, and a thousand, had distinct signs. Fifty had the same sign as the unit—a simple wedge. The other numbers were composed from these elements.

1		11		100	
2		12		200	
3		20		300	
4		30		400	
5		40		500	
6		50		600	
7		60		700	
8		70		800	
9		80		900	
10		90		1000	

CHAPTER VI.

MANNERS AND CUSTOMS.

CHALDÆA, unlike Egypt, has preserved to our day but few records of the private or domestic life of its inhabitants. Beyond the funereal customs, to which reference was made in the last chapter,[1] we can obtain from the monuments but a very scanty account of their general mode of life, manners, and usages. Some attempt, however, must be made to throw together the few points of this nature on which we have obtained any light from recent researches in Mesopotamia.

The ordinary dress of the common people among the Chaldæans seems to have consisted of a single garment, a short tunic, tied round the waist, and reaching thence to the knees, a costume very similar to that worn by the Madan Arabs at the present day.[2] To this may sometimes have been added an *abba*, or cloak, thrown over the shoulders, and falling below the tunic, about half-way down the calf of the leg.[3] The material of the former we may perhaps presume to have been linen, which best suits the climate, and is a fabric found in the ancient tombs.[4] The outer cloak was most likely of woollen, and served to protect hunters and others against the occasional inclemency of the air. The feet were unprotected by either shoes or sandals; on the head was worn a skull-cap, or else a band of camel's hair[5]—the germ of the turban which has now become universal throughout the East.

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[1] See above, pp. 85-89.

[2] Mr. Loftus makes this comparison (*Chaldæa and Susiana*, p. 257). For representations of the costume see Loftus, pp. 257, 258, 260; and Rich (*Second Memoir*, pl. iii. fig. 13).

[3] See Loftus, *Chaldæa and Susiana*, p. 258.

[4] *Asiatic Journal*, vol. xv. p. 271.

[5] Loftus, p. 258. Compare the central standing figure in the cylinder of which a representation is given, p. 94.

The costume of the richer classes was more elaborate. A high mitre, of a very peculiar appearance,[6] or else a low cap, ornamented with two curved horns, covered the head. The neck and arms were bare. The chief garment was a long gown or robe, extending from the neck to the feet, commonly either striped or flounced, or both; and sometimes also adorned with fringe. This robe, which was scanty according to modern notions, appears not to have been fastened by any girdle or cincture round the waist, but to have been kept in place by passing over one shoulder, a slit or hole being made for the arm on one side of the dress only. In some cases the upper part of the dress seems to have been detached from the lower, and to have formed a sort of jacket, which reached about to the hips.

The beard was commonly worn straight and long, not in crisp curls, as by the Assyrians. The hair was also worn long, either gathered together into a club behind the head, or depending in long spiral curls on either side the face and down the back. Ornaments were much affected, especially by the women. Bronze and iron bangles and armlets, bracelets of rings or beads, ear-rings, and rings for the toes, are common in the tombs, and few female skeletons are without them. The material of the ornaments is generally of small value. Many of the rings are formed by grinding down a small kind of shell;[7] the others are of bronze or iron. Agate beads, however, are not uncommon, and gold beads have been found in a few tombs, as well as some other small ornaments in the same material. The men seem to have carried generally an engraved cylinder in agate or other hard stone, which was used as a seal

[6] See the same cylinder, where two of the three standing figures wear the mitre in question.

[7] Taylor in the *Journal of the Asiatic Society*, vol. xv. p. 272.

or signet, and was probably worn round the wrist.[8] Sometimes rings,[9] and even bracelets,[1] formed also a part of their adornment. The latter were occasionally in gold—they consisted of bands or fillets of the pure beaten metal, and were as much as an inch in breadth.

The food of the early Chaldæans consisted probably of the various esculents which have already been mentioned as products of the territory.[2] The chief support, however, of the mass of the population was, beyond a doubt, the dates, which still form the main sustenance of those who inhabit the country. It is clear that in Babylonia, as in Scythia,[3] the practice existed of burying with a man a quantity of the food to which he had been accustomed during life. In the Chaldæan sepulchres a number of dishes are always ranged round the skeleton, containing the *viaticum* of the deceased person, and in these dishes are almost invariably found a number of date-stones. They are most commonly unaccompanied by any traces of other kinds of food; occasionally, however, besides date-stones, the bones of fish and of chickens have been discovered, from which we may conclude that those animals were eaten, at any rate by the upper classes. Herodotus[4] tells us that in his day three tribes of Babylonians subsisted on fish alone; and the present inhabitants of Lower Mesopotamia make it a principal article of their diet.[5] The rivers and the marshes produce it in great abundance, while the sea is also at hand, if the fresh-water supply should fail. Carp and barbel are the principal fresh-water sorts, and of these the former grows to a very great size in the Euphrates. An early tablet, now in the British Museum, represents a man carrying a large fish by the head, which may be a carp, though the species can scarcely be identified. There is evidence that the wild-boar was also eaten by the primitive people; for Mr. Loftus found a jaw of this animal, with the tusk still remaining, lying in a

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[8] At least this is the position which the signet cylinder always occupies in the tombs. (*Asiatic Journal*, vol. xv. p. 271.)

[9] Ibid. p. 415.

[1] See the sitting figure in the cylinder, p. 94; and compare *As. Journ.* vol. xv. p. 273.

[2] See above, pp. 33-36.

[3] Herod. iv. 71 (Author's Translation, vol. iii. pp. 61-63).

[4] Ibid. i. 200.

[5] Layard, *Nineveh and Babylon*, ch. xxiv. p. 567.

shallow clay dish in one of the tombs.[6] Perhaps we may be justified in concluding, from the comparative rarity of any remains of animal food in the early sepulchres, that the primitive Chaldæans subsisted *chiefly* on vegetable productions. The variety and excellence of such esculents are prominently put forward by Berosus in his account of the original condition of the country;[7] and they still form the principal support of those who now inhabit it.

We are told that Nimrod was "a mighty hunter before the Lord;"[8] and it is evident, from the account already given of the animals indigenous in Lower Mesopotamia,[9] that there was abundant room for the display of a sportsman's skill and daring when men first settled in that region. The Senkareh tablets show the boldness and voracity of the Chaldæan lion, which not only levied contributions on the settlers' cattle,[1] but occasionally ventured to attack man himself. We have not as yet any hunting scenes belonging to these early times; but there can be little doubt that the bow was the chief weapon used against the king of beasts, whose assailants commonly prefer remaining at a respectful distance from him.[2] The wild-boar may have been hunted in the same way, or he may have been attacked with the spear—a weapon equally well known with the bow to the early settlers.[3] Fish were certainly taken with the hook; for fish-hooks have been found in the tombs;[4] but probably they were also captured in nets, which are among the earliest of human inventions.[5]

A considerable portion of the primitive population must have been engaged in maritime pursuits. In the earliest inscriptions we find constant mention of the "ships of Ur," which appear to have traded with Ethiopia—a country whence may have been derived the gold, which—as has been already shown—was so

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[6] *Journal of the Asiatic Society*, vol. xv. p. 272, note [1].

[7] See the *Fragmenta Hist. Græc.* vol. ii. p. 496; Fr. 1, § 2.

[8] Gen. x. 9.

[9] See above, ch. ii. p. 39.

[1] See Loftus, *Chaldæa and Susiana*, p. 258.

[2] Ibid. ch. xx. p. 259.

[3] For representations of spearheads, vide supra, p. 96.

[4] *Journal of Asiatic Society*, vol. xv. p. 272, note [2].

[5] See Wilkinson, *Ancient Egyptians*, 1st Series, vol. ii. p. 21; vol. iii. p. 55; and compare Sophocl. *Antig.* 347, where the invention of nets is united with that of ships, agriculture, and language.

largely used by the Chaldæans in ornamentation.[6] It would be interesting could we regard it as proved that they traded also with the Indian peninsula; but the "rough logs of wood, *apparently teak*," which Mr. Taylor discovered in the great temple at Mugheir,[7] belong more probably to the time of its repair by Nabonidus than to that of its original construction by a Chaldæan monarch. The Sea-god was one of the chief objects of veneration at Ur and elsewhere; and Berosus appears to have preserved an authentic tradition, where he makes the primitive people of the country derive their arts and civilization from "the Red Sea."[8] Even if their commercial dealings did not bring them into contact with any more advanced people, they must have increased the intelligence, as well as the material resources, of those employed in them, and so have advanced their civilization.

Such are the few conclusions concerning the manners of the Chaldæans which alone we seem to have any right to form with our present means of information.

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[6] See above, p. 81.

[7] *Journal of the Asiatic Society*, vol. xv. p. 264.

[8] *Fragm. Hist. Græc.* l. s. c. The "Red Sea" of Berosus, like that of Herodotus, is not our Red Sea, but the sea which washes the south of Asia, including both the Indian Ocean and the Persian Gulf. (See Herod. i. 1; Author's Translation, vol. i. p. 153, note [2].)

CHAPTER VII.

RELIGION.

Ἀποτελέσαι δὲ τὸν Βῆλον καὶ ἄστρα, καὶ ἥλιον, καὶ σελήνην, καὶ τοὺς πέντε πλανήτας.—BEROS. ap. Syncell. p. 53.

THE religion of the Chaldæans, from the very earliest times to which the monuments carry us back, was, in its outward aspect, a polytheism of a very elaborate character. It is quite possible that there may have been esoteric explanations, known to the priests and the more learned, which, resolving the personages of the Pantheon into the powers of nature, reconciled the apparent multiplicity of gods with monotheism, or even with atheism.[1] So far, however, as outward appearances were concerned, the worship was grossly polytheistic. Various deities, whom it was not considered at all necessary to trace to a single stock, divided the allegiance of the people, and even of the kings, who regarded with equal respect, and glorified with equally exalted epithets, some fifteen or sixteen personages. Next to these principal gods were a far more numerous assemblage of inferior or secondary divinities, less often mentioned, and regarded as less worthy of honour, but still recognised generally through the country. Finally, the Pantheon contained a host of mere local gods or genii, every town and almost every village in Babylonia being under the protection of its own particular divinity.

It will be impossible to give a complete account of this vast and complicated system. The subject is still but partially

[1] It appears from Eusebius (*Chron. Can.* pars i. c. ii.) and Syncellus (*Chronograph.* vol. i. pp. 50-53) that Berosus at any rate gave this turn to the Babylonian mythology. What is commonly reported of Pythagoras, Democritus, and others, who are said to have drawn their philosophies from Chaldæan sources, would seem to show that there was really such an esoteric doctrine as is suggested in the text. We cannot tell, however, which more nearly represented it—the monotheism of the Samian, or the atheism of the Abderite philosopher.

worked out by cuneiform scholars; the difficulties in the way of understanding it are great; and in many portions to which special attention has been paid it is strangely perplexing and bewildering.[2] All that will be attempted in the present place is to convey an idea of the general character of the Chaldæan religion, and to give some information with regard to the principal deities.

In the first place, it must be noticed that the religion was to a certain extent *astral*. The heaven itself, the sun, the moon, and the five planets, have each their representative in the Chaldæan Pantheon among the chief objects of worship. At the same time it is to be observed that the astral element is not universal, but partial; and that, even where it has place, it is but one aspect of the mythology, not by any means its full and complete exposition. The Chaldæan religion even here is far from being mere Sabæanism—the simple worship of the "host of heaven." The æther, the sun, the moon, and still more the five planetary gods, are something above and beyond those parts of nature. Like the classical Apollo and Diana, Mars and Venus, they are real persons, with a life and a history, a power and an influence, which no ingenuity can translate into a metaphorical representation of phenomena attaching to the air and to the heavenly bodies. It is doubtful, indeed, whether the gods of this class are really of astronomical origin, and not rather primitive deities, whose characters and attributes were, to a great extent, fixed and settled before the notion arose of connecting them with certain parts of nature. Occasionally they seem to represent heroes rather than celestial bodies; and they have all attributes quite distinct from their physical or astronomical character.

Secondly, the striking resemblance of the Chaldæan system to that of the Classical Mythology seems worthy of particular attention. This resemblance is too general, and too close in some respects, to allow of the supposition that mere accident has produced the coincidence. In the Pantheons of Greece and

[2] See the Essay of Sir H. Rawlinson in the author's *Herodotus*, vol. i. p. 585; from which most of the views contained in this chapter are taken.

Rome, and in that of Chaldæa, the same general grouping is to be recognised; the same genealogical succession is not unfrequently to be traced; and in some cases even the familiar names and titles of classical divinities admit of the most curious illustration and explanation from Chaldæan sources. We can scarcely doubt but that, in some way or other, there was a communication of beliefs—a passage in very early times, from the shores of the Persian Gulf to the lands washed by the Mediterranean, of mythological notions and ideas. It is a probable conjecture[3] that "among the primitive tribes who dwelt on the Tigris and Euphrates, when the cuneiform alphabet was invented and when such writing was first applied to the purposes of religion, a Scythic or Scytho-Arian race existed, who subsequently migrated to Europe, and brought with them those mythical traditions which, as objects of popular belief, had been mixed up in the nascent literature of their native country," and that these traditions were passed on to the classical nations, who were in part descended from this Scythic or Scytho-Arian people.[4]

The grouping of the principal Chaldæan deities is as follows. At the head of the Pantheon stands a god, Il or Ra, of whom but little is known. Next to him is a Triad, *Ana*, *Bil*, or *Belus*, and *Hea* or *Hoa*, who correspond closely to the classical Pluto, Jupiter, and Neptune. Each of these is accompanied by a female principle or wife;—*Ana* by *Anat*, *Bil* (or Bel) by *Mulita* or Beltis, and *Hea* or *Hoa* by *Davkina*. Then follows a further Triad, consisting of *Sin* or *Hurki*, the Moon-god; *San* or *Sansi*, the Sun; and *Vul*,[5] the god of the atmosphere. The members of this Triad are again accompanied by female powers or wives, —*Vul* by a goddess called *Shala* or *Tala*, *San* (the Sun) by *Gula*

[3] Sir H. Rawlinson, in the above-quoted Essay, p. 586.

[4] It is now generally allowed that a Scythic or Turanian race was the first to people Europe. Of this race we have still remnants in the Basques, Fins, Laps, and Esths or Esthonians upon the Baltic. The Etruscans in Italy are perhaps of the same stock. In Greece they probably blended with the Pelasgi (Arians), as they did also with the Celts in several countries. The "lake-dwellings" of Europe may be with great probability assigned to them; and the flint-weapons in the drift are perhaps traces of their burial-grounds.

[5] This name is very doubtful. Mr. Fox Talbot renders it by *Yem*; M. Oppert by *Ao* or *Hu*; Dr. Hincks by *Ic* or *Iva*; M. Lenormant by *Bin*.

or *Anunit*, and *Hurki* (the Moon) by a goddess whose name is wholly uncertain, but whose common title is "the great lady." Such are the gods at the head of the Pantheon. Next in order to them we find a group of five minor deities, the representatives of the five planets,—Nin or Ninip (Saturn), Merodach (Jupiter), Nergal (Mars), Ishtar (Venus), and Nebo (Mercury). These together constitute what we have called the *principal* gods; after them are to be placed the numerous divinities of the second and third order.

These principal gods do not appear to have been connected, like the Egyptian and the classical divinities,[6] into a single genealogical scheme: yet still a certain amount of *relationship* was considered to exist among them. Ana and Bel, for instance, were brothers, the sons of Il or Ra; Vul was son of Ana; Hurki, the Moon-god, of Bel; Nebo and Merodach were sons of Hea or Hoa. Many deities, however, are without parentage, as not only Il or Ra, but Hea, San (the Sun), Ishtar, and Nergal. Sometimes the relationship alleged is confused, and even contradictory, as in the case of Nin or Ninip, who is at one time the son, at another the father of Bel, and who is at once the son and the husband of Beltis. It is evident that the genealogical aspect is not that upon which much stress is intended to be laid, or which is looked upon as having much reality. The great gods are viewed habitually rather as a hierarchy of co-equal powers, than as united by ties implying on the one hand pre-eminence and on the other subordination.

We may now consider briefly the characters and attributes of the several deities, so far as they can be made out, either from the native records, or from classical tradition. And first, concerning the god who stands in some sense at the head of the Chaldæan Pantheon,

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[6] These schemes themselves were probably not genealogical at first. In their genealogical shape they were an arrangement given after a while to separate and independent deities recognised in different places by distinct communities, or even by distinct races. (See Bunsen's *Egypt*, vol. iv. p. 66, B. Engl. Transl.)

IL or RA.

The form *Ra* represents probably the native Chaldæan name of this deity, while *Il* is the Semitic equivalent. *Il*, of course, is but a variant of *El* (אֵל), the root of the well-known Biblical *Elohim* (אֱלֹהִים) as well as of the Arabic *Allah*. It is this name which Diodorus represents under the form of *Elus* (Ἦλος),[7] and Sanchoniathon, or rather Philo-Byblius, under that of Elus (Ἦλος) or *Ilus* (Ἶλος).[8] The meaning of the word is simply "God," or perhaps "the god" emphatically. *Ra*, the Cushite equivalent, must be considered to have had the same force originally, though in Egypt it received a special application to the sun, and became the proper name of that particular deity. The word is lost in the modern Ethiopic. It formed an element in the native name of Babylon, which was *Ka-ra*, the Cushite equivalent of the Semitic *Bab-il*, an expression signifying "the gate of God."

Ra is a god with few peculiar attributes. He is a sort of fount and origin of deity, too remote from man to be much worshipped or to excite any warm interest. There is no evidence of his having had any temple in Chaldæa during the early times. A belief in his existence is implied rather than expressed in inscriptions of the primitive kings, where the Moon-god is said to be "brother's son of Ana, and eldest son of Bil, or Belus." We gather from this, that Bel and Ana were considered to have a common father; and later documents sufficiently indicate that that common father was Il or Ra. We must conclude from the name *Babil*, that Babylon was originally under his protection, though the god specially worshipped in the great temple there seems to have been in early times Bel, and in later times Merodach. The identification of the Chaldæan Il or Ra with Saturn, which Diodorus makes,[9] and which may seem to derive some confirmation from Philo-

[7] See Diod. Sic. ii. 30, § 3, where, however, there is a corrupt reading, the word Ἥλου being most absurdly replaced by Ἡλίου.

[8] See his fragments in Müller's *Fragm. Hist. Græc.* vol. iii. pp. 567 and 571; Fr. 2, § 14, and Fr. 5.

[9] Loc. sup. cit. Ἰδίᾳ τὸν ὑπὸ τῶν Ἑλλήνων Κρόνον ὀνομαζόμενον καλοῦσιν Ἥλου.

Byblius,[1] is certainly incorrect, so far as the planet Saturn, which Diodorus especially mentions, is concerned; but it may be regarded as having a basis of truth, inasmuch as Saturn was in one sense the chief of the gods, and was the father of Jupiter and Pluto, as Ra was of Bil and Ana.

ANA.

Ana, like *Il* and *Ra*, is thought to have been a word originally signifying "God," in the highest sense. The root occurs probably in the Annedôtus and Oannes of Berosus,[2] as well as in Philo-Byblius's Anobret.[3] In its origin it is probably Cushite; but it was adopted by the Assyrians, who inflected the word (which was indeclinable in the Chaldæan tongue), making the nominative *Anu*, the genitive *Ani*, and the accusative *Ana*.

Ana is the head of the first Triad, which follows immediately after the obscure god Ra. His position is well marked by Damascius,[4] who gives the three gods, Anus, Illinus, and Aüs, as next in succession to the primeval pair, Assorus and Missara. He corresponds in many respects to the classical Hades or Pluto, who, like him, heads the triad to which he belongs.[5] His epithets are chiefly such as mark priority and antiquity. He is called "the old Ana," "the original chief," perhaps in one place "the father of the gods," and also "the Lord of spirits and demons." Again, he bears a number of titles which serve to connect him with the infernal regions. He is "the king of the lower world," the "Lord of darkness" or "death," "the ruler of the far-off city," and the like. The chief seat of his worship is *Huruk* or Erech—the modern Warka—which becomes the favourite Chaldæan burying city, as being under his protection. There are some grounds for thinking

[1] Κρόνος τοίνυν, ὃν οἱ Φοίνικες Ἥλον προσαγορεύουσι, βασιλεύων τῆς χώρας, καὶ ὕστερον μετὰ τὴν τοῦ βίου τελευτὴν εἰς τὸν τοῦ Κρόνου ἀστέρα καθιερωθείς, κ.τ.λ. This, however, professes to be Phœnician and not Babylonian mythology.

[2] Fr. 1, § 3 and Fr. 6. Annedôtus (Ἀννήδωτος) is (perhaps) "given by Ana," or "given by God." Oannes is probably *Hoa-ana*; or "the god Hoa."

[3] Fr. 5. Anobret (Ἀνωβρέτ) signifies "beloved by Ana."

[4] Damasc. *De Princip.* 125.

[5] Hesiod, *Theogon.* 455-457; Apollod. *Bibliothec.* i. 1, §§ 5, 6.

that one of his names was *Dis*.[6] If this was indeed so, it would seem to follow, almost beyond a doubt, that Dis, the lord of Orcus in Roman mythology, must have been a reminiscence brought from the East—a lingering recollection of *Dis* or Ana, patron god of Erech ('Ορὲχ of the LXX), the great city of the dead, the necropolis of Lower Babylonia. Further, curiously enough, we have, in connexion with this god, an illustration of the classical confusion between Pluto and Plutus; for Ana is "the layer-up of treasures"—the "lord of the earth" and of the "mountains," whence the precious metals are derived.

The worship of Ana by the kings of the Chaldæan series is certain. Not only did Shamas-vul, the son of Ismi-dagon, raise a temple to the honour of Ana and his son Vul at Kileh-Shergat (or Asshur) about B.C. 1830—whence that city appears in later times to have borne the name of Telane,[7] or "the mound of Ana"—but Urukh himself mentions him as a god in an inscription quoted above;[8] and there is reason to believe that from at least as early a date he was recognised as the presiding deity at Erech or Warka. This is evident from the fact, that though the worship of Beltis superseded that of Ana in the great temple at that place from a very remote epoch, yet the temple itself always retained the title of *Bit-Ana* (or Beth-Ana), "the house of Ana;" and Beltis herself was known commonly as "the lady of *Bit-Ana*," from the previous dedication to this god of the shrine in question. Ana must also have been worshipped tolerably early at Nipur (*Niffer*), or that city could scarcely have acquired, by the time of Moses,[9] the appellation of Calneh (Χαλάνη in the Septuagint translation), which is clearly *Kal-Ana*, "the fort of Ana."

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[6] A single wedge 𒀸, which according to Chaldæan numeration represents the number 60 (supra, p. 103), is emblematic of the god Ana on the notation tablets; and, as would be expected from this fact, *Ana* is one of the phonetic powers of 𒀸. Another of its powers is *Dis*; and hence the conclusion is drawn that Dis was probably another name of Ana. (See the Essay of Sir H. Rawlinson in the author's *Herodotus*, vol. i. p. 592.)

[7] Cf. Steph. Byz. ad voc. Τελάνη. Τελάνη, πόλις ἀρχαιοτάτη Συρίας (i.e. Ἀσσυρίας) ἣν ᾤκει Νῖνος πρὸ τῆς Νίνου κτίσεως.

[8] Supra, page 67.

[9] Gen. x. 10. The identification of Niffer with Calneh rests on the authority of the Talmud (see above, p. 15).

Ana was supposed to have a wife, Anata, of whom a few words will be said below. She bore her husband a numerous progeny. One tablet shows a list of nine of their children, among which, however, no name occurs of any celebrity. But there are two sons of Ana mentioned elsewhere, who seem entitled to notice. One is the god of the atmosphere, Vul (?), of whom a full account will be hereafter given.[1] The other bears the name of *Martu*, and may be identified with the *Brathy* (Βραθὺ) of Sanchoniathon.[2] He represents "Darkness" or "the West," corresponding to the Erebus of the Greeks.

ANATA.

Anat or Anata has no peculiar characteristics. As her name is nothing but the feminine form of the masculine Ana, so she herself is a mere reflection of her husband. All his epithets are applied to her, with a simple difference of gender. She has really no personality separate from his, resembling Amente in Egyptian mythology, who is a mere feminine Ammon.[3] She is rarely, if ever, mentioned in the historical and geographical inscriptions.

BIL or ENU.

Bil or Enu is the second god of the first Triad. He is, probably, the Illinus (*Il-Enu* or "God Enu") of Damascius.[4] His name, which seems to mean merely "lord,"[5] is usually followed by a qualificative adjunct, possessing great interest. It is proposed to read this term as *Nipru*, or in the feminine *Niprut*, a word which cannot fail to recall the Scriptural Nimrod, who is in the Septuagint Nebroth (Νεβρώθ). The term *nipru* seems to be formed from the root *napar*, which is in Syriac to "pursue," to "make to flee," and which has in Assyrian nearly the same meaning. Thus Bil-Nipru would be aptly translated as "the Hunter Lord," or "the god presiding over the chase," while,

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[1] Infra, pp. 129-131.

[2] *Fragm. Hist. Gr.* vol. iii. p. 566.

[3] Bunsen's *Egypt*, vol. i. p. 378, E. T.; Wilkinson in the author's *Herodotus*, vol. ii. p. 295.

[4] *De Princip.* 125.

[5] *Bil* or *Bilu* is "lord" in the Assyrian and the Semitic Babylonian: *Enu* is the corresponding Cushite or Hamitic term.

at the same time, it might combine the meaning of "the conquering Lord" or "the Great Conqueror."

On these grounds it is reasonable to conclude that we have, in this instance, an admixture of hero-worship in the Chaldæan religion. Bil-Nipru is probably the Biblical Nimrod, the original founder of the monarchy, the "mighty hunter" and conqueror. At the same time, however, that he is this hero deified, he represents also, as the second God of the first Triad, the classical Jupiter. He is "the supreme," "the father of the gods," "the procreator," "the Lord" *par excellence*, "the king of all the spirits," "the lord of the world," and again, "the lord of all the countries." There is some question whether he is altogether to be identified with the Belus of the Greek writers, who in certain respects rather corresponds to Merodach.[6] When Belus, however, is called the first king,[7] the founder of the empire, or the builder of Babylon,[8] it seems necessary to understand Bil-Nipru or Bel-Nimrod. Nimrod, we know, built Babylon;[9] and Babylon was called in Assyrian times "the city of Bil-Nipru," while its famous defences—the outer and the inner wall—were known, even under Nebuchadnezzar, by the name of the same god.[1] Nimrod, again, was certainly the founder of the kingdom;[2] and, therefore, if Bil-Nipru is his representative, he would be Belus under that point of view.

The chief seat of Bel-Nimrod's worship was undoubtedly Nipur (Niffer) or Calneh. Not only was this city designated by the very same name as the god, and specially dedicated to him and to his wife Beltis, but Bel-Nimrod is called "Lord of Nipra," and his wife "Lady of Nipra," in evident allusion to this city or the tract wherein it was placed. Various traditions, as will be hereafter shown,[3] connect Nimrod with Niffer,

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[6] The Jupiter Belus worshipped in the great temple at Babylon seems certainly to have been Merodach, who likewise represents the planet Jupiter. (See below, p. 134.)

[7] As by Abydenus (cf. Euseb. *Chron. Can.* i. 12, p. 36, and Mos. Choren. i. 4, p. 13), by Stephen (ad. voc. Βαβυλών), and, perhaps we may say, by Herodotus (i. 7). Compare also Thallus (Fr. 2) and Mos. Choren. (i. 6, and 9), who absolutely identifies Belus with Nimrod.

[8] Abyden. Fr. 8. [9] Gen. x. 10.

[1] These walls were known respectively as the *Ingur-Bilu-Nipru*, and the *Nimiti-Bilu-Nipru*. (Sir H. Rawlinson in the author's *Herodotus*, vol. i. p. 596, and vol. ii. p. 586.) [2] Gen. x. 10. [3] Infra, pp. 153, 154.

which may fairly be regarded as his principal capital. Here then he would be naturally first worshipped upon his decease; and here seems to have been situated his famous temple called *Kharris-Nipra*, so noted for its wealth, splendour, and antiquity, which was an object of intense veneration to the Assyrian kings. Besides this celebrated shrine, he does not appear to have possessed many others. He is sometimes said to have had four "arks" or "tabernacles;" but the only places, besides Niffer, where we know that he had buildings dedicated to him, are Calah (Nimrud) and Dur-Kurri-galzu (Akkerkuf). At the same time he is a god almost universally acknowledged in the invocations of the Babylonian and Assyrian kings, in which he has a most conspicuous place. In Assyria he seems to be inferior only to Asshur; in Chaldæa to Ra and Ana.

Of Beltis, the wife of Bel-Nimrod, a full account will be given presently. Nin or Ninip—the Assyrian Hercules—was universally regarded as their son; and he is frequently joined with Bel-Nimrod in the invocations. Another famous deity, the Moon-god, Sin or Hurki, is also declared to be Bel-Nimrod's son in some inscriptions. Indeed, as "the father of the gods," Bel-Nimrod might evidently claim an almost infinite paternity.

The worship of Bel-Nimrod in Chaldæa extends through the whole time of the monarchy. It has been shown that he was probably the deified Nimrod, whose apotheosis would take place shortly after his decease. Urukh, the earliest monumental king, built him a temple at Niffer; and Kurri-galzu, one of the latest, paid him the same honour at Akkerkuf. Urukh also frequently mentions him in his inscriptions in connexion with Hurki, the Moon-god, whom he calls his "eldest son."

BELTIS.

Beltis, the wife of Bel-Nimrod, presents a strong contrast to Anata, the wife of Ana. She is far more than the mere female power of Bel-Nimrod, being in fact a separate and very important deity. Her common title is "the *Great* goddess." In

Chaldæa her name was Mulita[4] or Enuta—both words signifying "the Lady;" in Assyria she was Bilta or Bilta-Nipruta, the feminine forms of Bil and Bilu-Nipru. Her favourite title was "the Mother of the Gods," or "the Mother of the Great Gods;" whence it is tolerably clear that she was the "Dea Syria" worshipped at Hierapolis under the Arian appellation of Mabog.[5] Though commonly represented as the wife of Bel-Nimrod, and mother of his son Nin or Ninip, she is also called "the wife of Nin," and in one place "the wife of Asshur." Her other titles are "the lady of Bit-Ana," "the lady of Nipur," "the Queen of the land" or "of the lands," "the great lady," "the goddess of war and battle," and "the queen of fecundity." She seems thus to have united the attributes of the Juno, the Ceres or Demeter,[6] the Bellona, and even the Diana of the classical nations; for she was at once the queen of heaven, the goddess who makes the earth fertile, the goddess of war and battle, and the goddess of hunting. In these latter capacities she appears, however, to have been gradually superseded by Ishtar, who sometimes even appropriates her higher and more distinctive appellations.

The worship of Beltis was wide-spread, and her temples were very numerous. At Erech (Warka) she was worshipped on the same platform, if not even in the same building, with Ana. At Calneh or Nipur (Niffer), she shared fully in her husband's honours. She had a shrine at Ur (Mugheir), another at Rubesi, and another outside the walls of Babylon. Some of these temples were very ancient, those at Warka and Niffer being

[4] Hence the Mylitta (Μύλιττα) of Herodotus (i. 131, 199), and perhaps the Molis (Μόλις) of Nic. Damascenus (*Fragm. Hist. Gr.* vol. iii. p. 361, note 16). It has been usual to derive these words from the Hebrew יָלַד, "generare;" but no similar root is found in either Assyrian or Babylonian. *Mul* in Hamitic Babylonian is the exact equivalent of *Bil* in Semitic Assyrian. Both signify "lord," while *Bilta* and *Mulita* signify "lady."

[5] *Mabog* is "the mother of the gods, from *ma* or *mata*, "mother," and *baga*, "god" (Sclavonic *bog*).

[6] Etymologists have been puzzled by the name Rhea (Ῥέα)—one of the numerous appellatives of the "Great Goddess"—who is known also as Ceres, Cybele or Cybebe, Mater Dindymene, Magna Mater, Bona Dea, Dea Phrygia, Ops, Terra, and Tellus. Perhaps the explanation is to be found in the numerical symbol of this goddess, which was 15, pronounced as *Ri* by the Chaldæans.

built by Urukh, while that at Mugheir was either built or repaired by Ismi-dagon.

According to one record,[7] Beltis was a daughter of Ana. It was especially as "Queen of Nipur" that she was the wife of her son Nin. Perhaps this idea grew up out of the fact that at Nipur the two were associated together in a common worship. It appears to have given rise to some of the Greek traditions with respect to Semiramis, who was made to contract an incestuous marriage with her own son Ninyas, although no explanation can at present be given of the application to Beltis of that name.

HEA or HOA.

The third god of the first Triad was Hea or Hoa, probably the Aüs (Ἀὸς) of Damascius.[8] His appellation is perhaps best rendered into Greek by the Ὦη of Helladius—the name given to the mystic animal, half man, half fish, which came up from the Persian Gulf to teach astronomy and letters to the first settlers on the Euphrates and Tigris.[9] It is perhaps contained also in the word by which Berosus designates this same creature —Oannes (Ὡάννης)[1]—which may be explained as *Hoa-ana*, or "the god Hoa." There are no means of strictly determining the precise meaning of the word in Babylonian; but it is perhaps allowable to connect it, provisionally, with the Arabic *Hiya*, which is at once "life" and "a serpent," since, according to the best authority, "there are very strong grounds for connecting Hea or Hoa with the serpent of Scripture, and the Paradisaical traditions of the tree of knowledge and the tree of life."[2]

Hoa occupies, in the first Triad, the position which in the classical mythology is filled by Poseidon or Neptune, and in some respects he corresponds to him. He is "the lord of the

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[7] The inscription on the open-mouthed lion, now in the British Museum. (See the author's *Herodotus*, vol. i. p. 625, note [6].)

[8] *De Princip.* l. s. c.

[9] Ap. Phot. *Bibliothec.* CCLXXXIX. p. 1594.

[1] Beros. Fr. 1, § 3. Oannes has been otherwise explained. It has been thought to signify "given by Ana."

[2] Sir H. Rawlinson in the author's *Herodotus*, vol. i. p. 600.

earth," just as Neptune is γαιήοχος; he is "the king of rivers;" and he comes from the sea to teach the Babylonians; but he is never called "the lord of the sea." That title belongs to Nin or Ninip. Hoa is "the lord of the abyss," or of "the great deep," which does not seem to be the sea, but something distinct from it. His most important titles are those which invest him with the character, so prominently brought out in Oë and Oannes,[3] of the god of science and knowledge. He is "the intelligent guide," or, according to another interpretation, "the intelligent *fish*,"[4] "the teacher of mankind," "the lord of understanding." One of his emblems is the "wedge" or "arrow-head," the essential element of cuneiform writing, which

seems to be assigned to him as the inventor, or at least the patron, of the Chaldæan alphabet.[5] Another is the serpent, which occupies so conspicuous a place among the symbols of the gods on the black stones recording benefactions, and which sometimes appears upon the cylinders. This symbol, here as elsewhere, is emblematic of superhuman knowledge—a record of the primeval belief that "the serpent was more subtle than any beast of the field."[6] The stellar name of Hoa was Kimmut; and it is suspected that in this aspect he was identified with the constellation Draco, which is perhaps the Kimah (כִּימָה) of Scripture.[7] Besides his chief character of "god of knowledge," Hoa is also "god of life," a capacity in which the serpent would again fitly symbolise him.[8] He was likewise

[3] Cf. Hellad. l. s. c., and Beros. Fr. 1, § 3. The latter writer gave the following account of Oannes—Παραδιδόναι, φησὶ, τοῖς ἀνθρώποις γραμμάτων καὶ μαθημάτων καὶ τεχνῶν παντοδαπῶν ἐμπειρίαν, καὶ πόλεων συνοικισμοὺς, καὶ ἱερῶν ἱδρύσεις, καὶ νόμων εἰσηγήσεις, καὶ γεωμετρίαν διδάσκειν, καὶ σπέρματα καὶ καρπῶν συναγωγὰς ὑποδεικνύναι, καὶ συνόλως πάντα τὰ πρὸς ἡμέρωσιν ἀνήκοντα βίου παραδιδόναι τοῖς ἀνθρώποις· ἀπὸ δὲ τοῦ χρόνου ἐκείνου οὐδὲν ἄλλο περισσὸν εὑρεθῆναι.

[4] Berosus and Helladius both agree in regarding Hoa (Ὥη or Ὡάννης) as the Fish-God; but from the inscriptions it appears that the Fish-God was really Nin or Ninip. (See below, p. 132.)

[5] So Berosus, l. s. c. [6] Gen. iii. 1.

[7] Job ix. 9; xxxviii. 31; Amos v. 8. There seem to be no grounds for our translating *Kimah* as "the Pleiades." It is not even a plural.

[8] It is not perhaps altogether clear *why* the serpent has been so frequently regarded as an emblem of life. Some say, because serpents are long-lived; others because the animal readily formed a circle, and a circle was the symbol of eternity. But, whatever the reason, the fact cannot be doubted.

"god of glory," and "god of giving," being, as Berosus said, the great giver of good gifts to man.[9]

The monuments do not contain much evidence of the early worship of Hoa. His name appears on a very ancient stone tablet brought from Mugheir (Ur); but otherwise his claim to be accounted one of the primeval gods must rest on the testimony of Berosus and Helladius, who represent him as known to the first settlers. He seems to have been the tutelary god of Is or *Hit*, which Isidore of Charax calls Aeipolis[1] ('Αειπολις), or "Hea's city;" but there is no evidence that this was a very ancient place. The Assyrian kings built him temples at Asshur and Calah.

Hoa had a wife *Dav-Kina*, of whom a few words will be said presently. Their most celebrated son was Merodach or Bel-Merodach, the Belus of Babylonian times. As Kimmut, Hoa was also the father of Nebo, whose functions bear a general resemblance to his own.

DAV-KINA.

Dav-Kina, the wife of Hoa, is clearly the Dauké or Davké (Δαύκη) of Damascius,[2] who was the wife of Aüs and mother of Belus (Bel-Merodach). Her name is thought to signify "the chief lady."[3] She has no distinctive titles or important position in the Pantheon, but, like Anata, takes her husband's epithets with a mere distinction of gender.

SIN or HURKI.

The first god of the second Triad is Sin or Hurki, the moon-deity. It is in condescension to Greek notions that Berosus inverts the true Chaldæan order, and places the sun before the

[9] See the passage cited at full length in note [3]. According to Assyrian notions, Hoa did not confine his presents to men. One of the kings of Assyria says—"The senses of seeing, hearing, and understanding, which Hoa allotted to the whole 4000 gods of heaven and earth, they in the fulness of their hearts granted to me."

[1] Mans. Parth. p. 5.

[2] *De Princip.* l. s. c. Τοῦ δὲ 'Αου καὶ Δαύκης υἱον γενέσθαι τὸν Βῆλον.

[3] Sir H. Rawlinson in the author's *Herodotus*, vol. i. p. 601, note [8]. Movers and Bunsen derive Δαύκη from the Heb. דָּוַךְ, "tundere," and interpret it "strife," comparing the Syriac *daukat*. (See Bunsen's *Egypt*, vol. iv. pp. 155, 156.)

moon in his enumeration of the heavenly bodies.[4] Chaldæan mythology gives a very decided preference to the lesser luminary, perhaps because the nights are more pleasant than the days in hot countries. With respect to the names of the god, we may observe that Sin, the Assyrian or Semitic term, is a word of quite uncertain etymology, which, however, is found applied to the moon in many Semitic languages;[5] while Hurki, which is the Chaldæan or Hamitic name, is probably from a root cognate to the Hebrew *'Ur*, עור, "vigilare," whence is derived the term sometimes used to signify "an angel"[6]—*'Ir*, עיר "a watcher."

The titles of Hurki are usually somewhat vague. He is "the chief," "the powerful," "the lord of spirits," "he who dwells in the great heavens;" or, hyperbolically, "the chief of the gods of heaven and earth," "the king of the gods," and even "the god of the gods." Sometimes, however, his titles are more definite and particular: as, firstly, when they belong to him in respect of his being the celestial luminary—*e. g.* "the bright," "the shining," "the lord of the month;" and, secondly, when they represent him as presiding over buildings and architecture, which the Chaldæans appear to have placed under his special superintendence. In this connexion he is called "the supporting architect," "the strengthener of fortifications," and, more generally, "the lord of building" (Bel-zuna).[7] Bricks, the Chaldæan building material, were of course under his protection; and the sign which designates them is also the sign of the month over which he was considered to exert particular care.[8] His ordinary symbol is the crescent or new moon, which is commonly represented as large, but of extreme

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[4] Beros. Fr. 1, § 6.

[5] *Sin* is used for the Moon in Mendæan and Syriac at the present day. It is the name given to the Moon-God in St. James of Scruj's list of the idols of Harran; and it was the term used for Monday by the Sabæans as late as the 9th century.

[6] As in Daniel iv. 13, 17, and in the Syriac liturgy.

[7] The term *zuna* may perhaps be connected with the Heb. זוּן, "form." *Zanan* is common in Assyrian for "building."

[8] Sin is expressly called "the god of the month Sivan of happy name;" and it may be suspected that his name is a mere contraction of Sivan. The sign used for the month Sivan is also the sign which represents "bricks."

thinness ; though not without a certain variety in the forms . The most curious and the most purely conventional representations are a linear semicircle , and an imitation of this semicircle formed by three straight lines[9] . The illuminated part of the moon's disk is always turned directly towards the horizon, a position but rarely seen in nature.

The chief Chaldæan temple to the moon-god was at Ur or Hur (Mugheir), a city which probably derived its name from him,[1] and which was under his special protection. He had also shrines at Babylon and Borsippa, and likewise at Calah and Dur-Sargina (Khorsabad). Few deities appear to have been worshipped with such constancy by the Chaldæan kings. His great temple at Ur was begun by Urukh, and finished by his son Ilgi—the two most ancient of all the monarchs. Later in the series we find him in such honour that every king's name during some centuries comprises the name of the moon-god in it. On the restoration of the Chaldæan power he is again in high repute. Nebuchadnezzar mentions him with respect; and Nabonidus, the last native monarch, restores his shrine at Ur, and accumulates upon him the most high-sounding titles.[2]

The moon-god is called, in more than one inscription, the eldest son of Bel-Nimrod. He had a wife (the moon-goddess) whose title was "the great lady," and who is frequently associated with him in the lists. She and her husband were conjointly the tutelary deities of Ur or Hur; and a particular

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[9] These forms are taken chiefly from the engravings of cylinders published by the late Mr. Cullimore.

[1] It is not uncommon for the second syllable in an Assyrian or Babylonian god's name to be dropped as unimportant. We have both *Asshur* and *As*, both *Sansi* and *San*, both *Ninip* and *Nin*, &c. Thus we might expect to find both *Hur* and *Hurki*. It is not perhaps a proof of the connexion—but still it is an argument in favour of it—to find that when Ur changed its name to Camarina (Eupolem. ap. Alex. Polyhist. Fr. 3), the new appellation was a derivative from another word (*Kamar*, Arab.) signifying "the moon." (Sir H. Rawlinson in the author's *Herodotus*, vol. i. p. 616.)

[2] Nabonidus calls him "the chief of the gods of heaven and earth, the king of the gods, god of gods, he who dwells in the great heavens," &c.

portion of the great temple there was dedicated to her honour especially. Her "ark" or "tabernacle," which was separate from that of her husband, was probably, as well as his, deposited in this sanctuary. It bore the title of "the lesser light," while his was called, emphatically, "the light."

SAN or SANSI.

San or Sansi, the sun-god, was the second member of the second Triad. The main element of this name is probably connected with the root *shani*, שָׁנִי, which is in Arabic, and perhaps in Hebrew, "bright."[3] Hence we may perhaps compare our own word "sun" with the Chaldæan "San;" for "sun" is most likely connected etymologically with "sheen" and "shine." Shamas or Shemesh, שֶׁמֶשׁ, the Semitic title of the god, is altogether separate and distinct, signifying, as it does, the *ministering* office of the sun,[4] and not the brilliancy of his light. A trace of the Hamitic name appears in the well-known city Bethsan,[5] whose appellation is declared by Eugesippus to signify "domus Solis," "the house of the sun."[6]

The titles applied to the sun-god have not often much direct reference to his physical powers or attributes. He is called indeed, in some places, "the lord of fire," "the light of the gods," "the ruler of the day," and "he who illumines the expanse of heaven and earth." But commonly he is either spoken of in a more general way, as "the regent of all things," "the establisher of heaven and earth;" or, if special functions are assigned to him, they are connected with his supposed "motive" power, as inspiring warlike thoughts in the minds of

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[3] In Hebrew *shani*, שָׁנִי, is usually translated "scarlet," but some learned Jews suggest that the true meaning is bright. (See Newman's *Hebrew Lexicon* ad voc., and compare Gesenius.)

[4] From שָׁמַשׁ, "ministrare." (See Buxtorf ad voc.)

[5] Josh. xvii. 11; Judg. i. 27; 1 Sam. xxxi. 10, &c. The Hebrew form is בֵּית־שְׁאָן, *Beth-shean*, or בֵּית־שָׁן, *Beth-shan*. The LXX give Βαιθσάν, Βαιθσαάν, Βαιθσείμ, and Βηθσάν. Josephus has Βήθσανα and Βεθσάνη. The Talmud contracts the word to *Bisan*, בִּיסָן; and the existing name is *Beisán*. As Scythopolis this city was well known to the Greeks and Romans.

[6] See the small treatise of Eugesippus, *De Locis*, &c., in the folio edition of the Byzantine Historians (vol. xxiii. sub fin.). "Scythopolis civitas, Galilææ metropolis, quæ et Bethsan, id est, domus solis."

the kings, directing and favourably influencing their expeditions; or again, as helping them to discharge any of the other active duties of royalty. San is "the supreme ruler who casts a favourable eye on expeditions," "the vanquisher of the king's enemies," "the breaker-up of opposition." He "casts his motive influence" over the monarchs, and causes them to "assemble their chariots and warriors"—he goes forth with their armies, and enables them to extend their dominions—he chases their enemies before them, causes opposition to cease, and brings them back with victory to their own countries. Besides this, he helps them to sway the sceptre of power, and to rule over their subjects with authority. It seems that, from observing the manifest agency of the material sun in stimulating all the functions of nature, the Chaldæans came to the conclusion that the sun-god exerted a similar influence on the minds of men, and was the great motive agent in human history.

The chief seats of the sun-god's worship in Chaldæa appear to have been the two famous cities of Larsa (Ellasar?) and Sippara. The great temple of the Sun, called Bit-Parra,[7] at the former place, was erected by Urukh, repaired by more than one of the later Chaldæan monarchs, and completely restored by Nebuchadnezzar. At Sippara, the worship of the sun-god was so predominant, that Abydenus, probably following Berosus, calls the town Heliopolis.[8] There can be little doubt that the Adrammelech, or "Fire-king,"[9] whose worship the Sepharvites (or people of Sippara) introduced into Samaria,[1] was this deity. Sippara is called *Tsipar sha Shamas*, "Sippara of the Sun," in various inscriptions, and possessed a temple of the god which was repaired and adorned by many of the ancient Chaldæan kings, as well as by Nebuchadnezzar and Nabonidus.

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[7] It would seem from this name that *Parra* was also a title under which the Sun was known in Chaldæa in the early times. May not this title be connected with the Egyptian *Ph-ra* or *Pi-ra*, "the sun," whence probably the Hebrew Pharaoh?

[8] Abyden. Fr. 1; Syncell. vol. i. p. 70.

[9] Winer, *Realwörterbuch*, ad voc. "Adrammelech." Sir H. Rawlinson allows this derivation to be not improbable (Rawlinson's *Herodotus*, vol. i. p. 611), suggesting, however, another, from *edim*, "the arranger," and *melek* (ibid.).

[1] 2 Kings xvii. 31.

The general prevalence of San's worship is indicated most clearly by the cylinders. Few comparatively of those which have any divine symbol upon them are without his. The symbol is either a simple circle ◯, a quartered disk ⊕, or a four-rayed orb of a more elaborate character .

San or Sansi had a wife, Ai, Gula, or Anunit, of whom it now follows to speak.

AI, GULA, or ANUNIT.

Ai, Gula, or Anunit, was the female power of the sun, and was commonly associated with San in temples and invocations. Her names are of uncertain signification, except the second, Gula, which undoubtedly means "great," being so translated in the vocabularies.[2] It is suspected that the three terms may have been attached respectively to the "rising," the "culminating," and the "setting sun,"[3] since they do not appear to interchange; while the name Gula is distinctly stated in one inscription to belong to the "great" goddess, "the wife of the *meridian* Sun." It is perhaps an objection to this view, that the male Sun, who is decidedly the superior deity, does not appear to be manifested in Chaldæa under any such threefold representation.[4]

As a substantive deity, distinct from her husband, Gula's characteristics are that she presides over life and over fecundity. It is not quite clear whether these offices belong to her alone, or whether she is associated in each of them with a sister goddess. There is a "Mistress of Life," who must be regarded as the special dispenser of that blessing; and there is a "Mistress of the Gods," who is expressly said to "preside over

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[2] *Gula* is rendered by *rabu* in the vocabularies, which is the Hebrew *rab*, רַב, "a great one"—and thence "a doctor." It is probably connected with the Abyssinian *guda*, "great;" but not with גָּדַל, or at any rate only indirectly.

Ai may perhaps be the same word as the Agau (Abyssinian) *avi*, "light."

[3] Sir H. Rawlinson in the author's *Herodotus*, vol. i. p. 612.

[4] In *Assyria* such a threefold worship of the male Sun is found; but even there we have no triple nomenclature.

births." Concerning these two personages we cannot at present determine whether they are really distinct deities, or whether they are not rather aspects of Gula, sufficiently marked to be represented in the temples by distinct idols.[5]

Gula was worshipped in close combination with her husband, both at Larsa and Sippara. Her name appears in the inscriptions connected with both places; and she is probably the "Anammelech," whom the Sepharvites honoured in conjunction with Adrammelech, the "Fire-King."[6] In later times she had also temples independent of her husband, at Babylon and Borsippa, as well as at Calah and Asshur.

The emblem now commonly regarded as symbolizing Gula is the eight-rayed disk or orb, which frequently accompanies the orb with four rays in the Babylonian representations. In lieu of a disk, we have sometimes an eight-rayed star . and even occasionally a star with six rays only . It is curious that the eight-rayed star became at an early period the universal emblem of divinity; but perhaps we can only conclude from this the *stellar* origin of the worship generally, and not any special pre-eminence or priority of Anunit over other deities.

VUL or IVA.

The third member of the second Triad is the god of the atmosphere, whose name it has been proposed to render phonetically in a great variety of ways.[7] Until a general agreement shall be established, it is thought best to retain a name with which readers are familiar; and the form *Vul* will therefore be used in these volumes. Were *Iva* the correct articula-

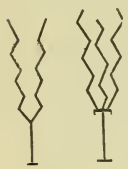
[5] The only place where these two deities are clearly distinguished from Gula is in the list of the idols contained in the great temple of Bel-Merodach at Babylon. But for this notice, the names would certainly have been regarded as nothing more than titles of Gula.

[6] No satisfactory explanation has been given of the word Anammelech. If it represents the female power of the sun, we must suppose that *Ana* is an abbreviated form of Anunit, and that *melek*, מֶלֶךְ, is for *malcah*, מַלְכָּה, the Jews from contempt not caring to be correct in the names of false gods.

[7] See above, p. 112, note [5].

tion, we might regard the term as simply the old Hamitic name for "the air," and illustrate it by the Arabic *heva*, هوا, which has still that meaning.

The importance of Vul in the Chaldæan mythology, and his strong positive character, contrast remarkably with the weak and shadowy features of Uranus, or Æther, in the classical system. Vul indeed corresponds in great measure with the classical Zeus or Jupiter, being, like him, the real "Prince of the power of the air," the lord of the whirlwind and the tempest, and the wielder of the thunderbolt. His standard titles are "the minister of heaven and earth," "the Lord of the air," "he who makes the tempest to rage." He is regarded as the destroyer of crops, the rooter-up of trees, the scatterer of the harvest. Famine, scarcity, and even their consequence, pestilence, are assigned to him. He is said to have in his hand a "flaming sword," with which he effects his works of destruction; and this "flaming sword," which probably represents lightning, becomes his emblem upon the tablets and cylinders, where it is figured as a double or triple bolt.[8] Vul again, as the god of the atmosphere, gives the rain; and hence he is "the careful and beneficent chief," "the giver of abundance," "the lord of fecundity." In this capacity he is naturally chosen to preside over canals, the great fertilizers of Babylonia; and we find among his titles "the lord of canals," and "the establisher of works of irrigation."



There is not much evidence of the worship of Vul in Chaldæa during the early times. That he must have been known appears from the fact of his name forming an element in the name of Shamas-Vul, son of Ismi-dagon, who ruled over Chaldæa about B.C. 1850.[9] It is also certain that this Shamas-Vul set up his worship at Asshur (Kileh-Sherghat) in Assyria, associating him there with his father Ana, and building to them

[8] Bolts of the kind represented were also used as trophies of victory. Tiglath-Pileser I. made one of copper and inscribed upon it a record of his conquests. (Sir H. Rawlinson in the author's *Herodotus*, vol. i. p. 609.)

[9] See below, ch. viii. p. 164.

conjointly a great temple.[1] Further than this we have no proof that he was an object of worship in the time of the first monarchy; though in the time of Assyrian preponderance, as well as in that of the later Babylonian Empire, there were few gods more venerated.

Vul is sometimes associated with a goddess, Shala or Tala, who is probably the Salambo or Salambas of the lexicographers.[2] The meaning of her name is uncertain;[3] and her epithets are for the most part obscure. Her ordinary title is *sarrat* or *sharrat*, "queen," the feminine of the common word *sar*, which means "Chief," "King," or "Sovereign."

BAR, NIN, or NINIP.

If we are right in regarding the five gods who stand next to the Triad formed of the Moon, the Sun, and the Atmosphere, as representatives of the five planets visible to the naked eye, the god Nin, or Ninip, should be Saturn. His names Bar, and Nin, are respectively a Semitic and a Hamitic term signifying "lord" or "master." Nin-ip, his full Hamitic appellation, signifies "Nin, by name," or "he whose name is Nin;" and, similarly, his full Semitic appellation seems to have been Bar-shem, "Bar, by name," or "he whose name is Bar"—a term which is not indeed found in the inscriptions, but which appears to have been well known to the early Syrians and Armenians,[4] and which was probably the origin of the title Barsemii, borne by the kings of Hatra (*Hadhr* near Kileh-Sherghat) in Roman times.[5]

In character and attributes the classical god, whom Nin most closely resembles, is, however, not Saturn, but Hercules. An indication of this connexion is perhaps contained in the Herodotean

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[1] See the *Inscription of Tiglath-Pileser I.* p. 62.

[2] Hesychius uses the form Σαλαμβώ, and calls the goddess "the Babylonian Venus." In the Etymologicum Magnum the form used is Σαλάμβας.

[3] The second element in Salambo or Salambas is probably *amma* (Heb. אֵם), "a mother."

[4] See Mos. Choren. *Hist. Armen.* i. 13, "Barsamum ob fortissimas res gestas in Deos ascriptum ad longum tempus Syri coluere." ii. 13, "Tigranes in Mesopotamiam descendit, et nactus ibi Barsami statuam, quam ex ebore et beryllo factam argento ornaverat, deportari eam jubet, et in Thordano oppido locari."

[5] Herodian. iii. 1, § 11.

genealogy, which makes Hercules an ancestor of Ninus.[6] Many classical traditions, we must remember, identified Hercules with Saturn;[7] and it seems certain that in the East at any rate this identification was common.[8] Nin, in the inscriptions, is the god of strength and courage. He is "the lord of the brave," "the champion," "the warrior who subdues foes," "he who strengthens the heart of his followers;" and again, "the destroyer of enemies," "the reducer of the disobedient," "the exterminator of rebels," "he whose sword is good." In many respects he bears a close resemblance to Nergal or Mars. Like him, he is a god of battle and of the chace, presiding over the king's expeditions, whether for war or hunting, and giving success in both alike. At the same time he has qualities which seem wholly unconnected with any that have been hitherto mentioned. He is the true "Fish-God" of Berosus,[9] and is figured as such in the sculptures. In this point of view he is called "the god of the sea," "he who dwells in the deep," and again, somewhat curiously, "the opener of aqueducts." Besides these epithets he has many of a more general character, as "the powerful chief," "the supreme," "the first of the gods," "the favourite of the gods," "the chief of the spirits," and the like. Again, he has a set of epithets,

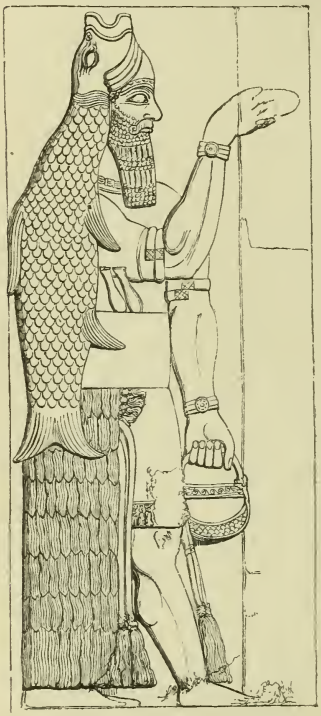

Figure of Nin, the Fish-God.

[6] Herod. i. 7.

[7] Lydus, *De Mensibus*, iv. 46; Athenag. *Leg. pro Christ.* xv. 6; Damasc. *de Princip.*

[8] See the Memoir of M. Raoul Rochette on the Assyrian Hercules in the 17th volume of the *Mém. de l'Institut.*, where this point is abundantly proved.

[9] Fr. 1, § 3. Τὸ μὲν ὅλον σῶμα ἔχον ἰχθύος, ὑπὸ δὲ τὴν κεφαλὴν παραπεφυκυῖαν ἄλλην κεφαλὴν ὑποκάτω τῆς τοῦ ἰχθύος κεφαλῆς, καὶ πόδας ὁμοίως ἀνθρώπου, παραπεφυκότας δὲ ἐκ τῆς οὐρᾶς τοῦ ἰχθύος.

which seem to point to his stellar character, very difficult to reconcile with the notion, that, as a celestial luminary, he was Saturn. We find him called "the light of heaven and earth," "he who, like the sun, the light of the gods, irradiates the nations." These phrases appear to point to the Moon, or to some very brilliant star, and are scarcely reconcilable with the notion that he was the dark and distant Saturn.

Nin's emblem, the Man-Bull.

Nin's emblem in Assyria is the Man-Bull, the impersonation of strength and power. He guards the palaces of the Assyrian kings, who reckon him their tutelary god, and give his name to their capital city. We may conjecture that in Babylonia his emblem was the sacred fish, which is often seen under different forms upon the cylinders.

The monuments furnish no evidence of the early worship of Nin in Chaldæa. We may perhaps gather the fact from Berosus' account of the Fish-God as an early object of veneration in that region,[10] as well as from the Hamitic etymology of the name by which he was ordinarily known even in Assyria.[1] There he was always one of the most important deities. His temple at Nineveh was very famous, and is noticed by Tacitus in his 'Annals;'[2] and he had likewise two temples at Calah (Nimrud), both of them buildings of some pretension.

[10] The Fish-god ('Ωάννης) comes out of the Red Sea (Persian Gulf) to instruct the settlers in *Chaldæa*.

[1] That the Assyrians commonly used the Hamitic Nin, or Ninip, and not the Semitic Bar, or Barshem, is proved by the traditions concerning Ninus, and by the name of their capital city.

[2] Tacit. *Ann.* xii. 13.

It has been already mentioned[3] that Nin was the son of Bel-Nimrod, and that Beltis was both his wife and his mother. These relationships are well established, since they are repeatedly asserted. One tablet, however, inverts the genealogy, and makes Bel-Nimrod the son of Nin, instead of his father. The contradiction perhaps springs from the double character of this divinity, who, as Saturn, is the father, but, as Hercules, the son of Jupiter.

BEL-MERODACH.

Bel-Merodach is, beyond all doubt, the planet Jupiter, which is still called Bel by the Mendæans. The name Merodach is of uncertain etymology and meaning. It has been compared with the Persian *mardak*,[4] the diminutive of *mard*, "a man," and with the Arabic *Mirrich*,[5] which is the name of the planet Mars. But, as there is every reason to believe that the term belongs to the Hamitic Babylonian, it is in vain to have recourse to Arian or Semitic tongues for its derivation. Most likely the word is a descriptive epithet, originally attached to the name Bel, in the same way as *Nipru*, but ultimately usurping its place and coming to be regarded as the proper name of the deity. It is doubtful whether any phonetic representative of Merodach has been found on the monuments; if so, the pronunciation should, apparently, be *Amardak*, whence we might derive the Amordacia (Ἀμορδακία) of Ptolemy.[6]

The titles and attributes of Merodach are of more than usual vagueness. In the most ancient monuments which mention him, he seems to be called "the old man of the gods,"[7] and "the judge"; he also certainly has the *gates*, which in early times were the seats of justice, under his special protection. Thus he would seem to be the god of justice and judgment—

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[3] See above, page 120.

[4] Gesenius, *Lexicon Hebraicum*, ad voc. "Merodach."

[5] Kitto's *Biblical Cyclopædia*, vol. ii. p. 328.

[6] This is Ptolemy's name for a district of Babylonia (see his *Geography*, v. 20). The Latin translator renders it by Mardocæa.

[7] So the Phœnicians worshipped Bel as Βελιθὰν, or בל איתן, "the *old* Bel" (Damasc. ap. Phot. *Bibliothec.* p. 343); and the Sabæans of Harran called their Bel, "Bel, the grave old man." (Chwolsohn, *Ssabier und Ssabismus*, vol. ii. p. 39.)

an idea which may have given rise to the Hebrew name of the planet Jupiter, viz. *Sedek*, צֶדֶק, "justitia." Bel-Merodach was worshipped in the early Chaldæan kingdom, as appears from the Tel-Sifr tablets. He was probably from a very remote time the tutelary god of the city of Babylon;[8] and hence, as that city grew into importance, the worship of Merodach became more prominent. The Assyrian monarchs always especially associate Babylon with this god; and in the later Babylonian empire he becomes by far the chief object of worship. It is his temple which Herodotus describes so elaborately,[9] and his image, which, according to the Apocryphal Daniel, the Babylonians worshipped with so much devotion.[10] Nebuchadnezzar calls him "the king of the heavens and the earth," "the great lord," "the senior of the gods," "the most ancient," "the supporter of sovereignty," "the layer-up of treasures," &c., and ascribes to him all his glory and successes.

We have no means of determining which among the emblems of the gods is to be assigned to Bel-Merodach; nor is there any sculptured form which can be certainly attached to him. According to Diodorus the great statue of Bel-Merodach at Babylon was a figure "standing and *walking*."[1] Such a form appears more often than any other upon the cylinders of the Babylonians; and it is perhaps allowable to conjecture that it may represent this favourite deity.

ZIR-BANIT.

Bel-Merodach has a wife, with whom he is commonly associated, called Zir-banit. She had a temple at Babylon, probably attached to her husband's, and is perhaps the Babylonian Juno (Hera) of Diodorus.[2] The essential element of her name seems

[8] The Babylonian kings are fond of including the word Merodach in their names. As early as B.C. 1110, we find a *Merodach-iddin-akki*, the son of an *Irba-Merodach*. Afterwards we have Merodach-Baladan, Mesessimordachus, Evil-Merodach, &c.

[9] Herod. i. 181-183. Compare Diod. Sic. ii. 9.

[10] Apoc. Dan. xiv. 2.

[1] Diod. Sic. ii. 9, § 5: Τὸ μὲν τοῦ Διὸς ἄγαλμα ἑστηκὸς ἦν καὶ διαβεβηκός.

[2] Ibid. ii. 9, § 6.

to be *Zir*, which is an old Hamitic root, of uncertain meaning, while the accompanying *banit* is a descriptive epithet, which may be rendered by "genetrix." Zir-banit was probably the goddess whose worship the Babylonian settlers carried to Samaria, and who is called Succoth-benoth in Scripture.[3]

NERGAL.

Nergal, the planet Mars, whose name was continued to a late date, under the form of Nerig in the astronomical system of the Mendæans, is a god whose character and attributes are tolerably clear and definite. His name is evidently compounded of the two Hamitic roots *nir*, "a man," and *gula*, "great;" so that he is "the great man," or "the great hero." He is the special god of war and of hunting, more particularly of the latter. His titles are "the king of battle," "the champion of the gods," "the storm ruler," "the strong begetter," "the tutelar god of Babylonia," and "the god of the chace." He is usually coupled with Nin, who likewise presides over battles and over hunting; but while Nin is at least his equal in the former sphere, Nergal has a decided pre-eminence in the latter.

We have no distinct evidence that Nergal was worshipped in the primitive times. He is first mentioned by some of the early Assyrian kings,[4] who regard him as their ancestor. It has, however, been conjectured that, like Bil-Nipru, he represented the deified hero, Nimrod,[5] who may have been worshipped in different parts of Chaldæa under different titles.

The city peculiarly dedicated to Nergal was Cutha or Tiggaba, which is constantly called his city in the inscriptions. He was worshipped also at Tarbisa, near Nineveh, but in Tiggaba he was said to "live," and his shrine there was one of great celebrity. Hence "the men of Cuth," when transported to Samaria by the Assyrians, naturally enough "made Nergal their god," carrying his worship with them into their new country.[6]

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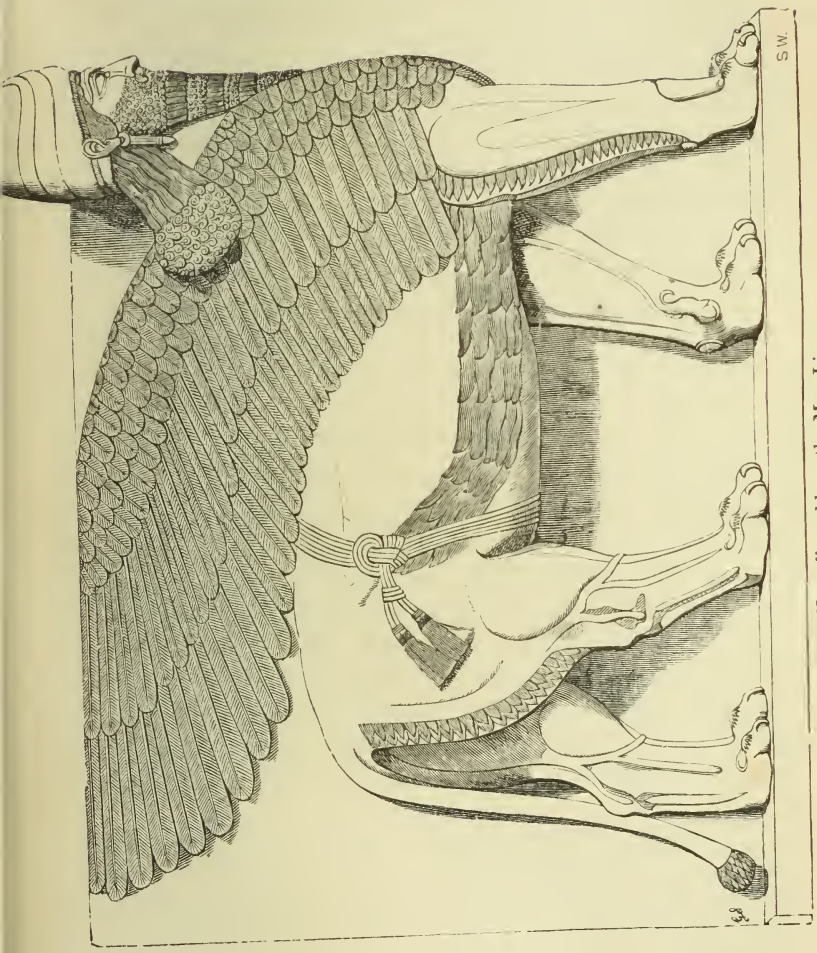
[3] Succoth, "tents," is probably a mistranslation of Zir, or Zirat, which was confounded with *zarat*, a word having that meaning.

[4] As Tiglath-Pileser I., about B.C. 1100, and Asshur-izir-pal, about B.C. 850.

[5] Sir H. Rawlinson in the author's *Herodotus*, vol. i. p. 632.

[6] See 2 Kings xvii. 30.



Nergal's emblem, the Man-Lion.

It is probable that Nergal's symbol was the Man-Lion. *Nir* is sometimes used in the inscriptions in the meaning of "lion;" and the Semitic name for the god himself is "Aria"—the ordinary term for the king of beasts both in Hebrew and in Syriac. Perhaps we have here the true derivation of the Greek name for the god of war, Ares (Ἄρης),[7] which has long puzzled classical scholars. The lion would symbolize both the fighting and the hunting propensities of the god, for he not only engages in combats upon occasions, but often chases his prey and runs it down like a hunter. Again, if Nergal is the Man-Lion, his association in the buildings with the Man-Bull, would be exactly parallel with the conjunction, which we so constantly find, between him and Nin in the inscriptions.

Nergal had a wife, called Laz, of whom, however, nothing is known beyond her name. It is uncertain which among the emblems of the gods appertains to him.

ISHTAR or NANA.

Ishtar or Nana is the planetary Venus, and in general features corresponds with the classical goddess. Her name Ishtar is that by which she was known in Assyria; and the same term prevailed with slight modifications among the Semitic races generally. The Phœnician form was Astarte, the Hebrew Ashtoreth;[8] the later Mendæan form was Ashtar. In Babylonia the goddess was known as Nana, which seems to be the Nanæa of the second book of Maccabees,[9] and the Nani of the modern Syrians.[10] No satisfactory account can at present be given of the etymology of either name; for the proposal to connect Ishtar with the Greek

[7] The Sabæans of Harran, who used generally the Babylonian appellations of the gods, applied the name of *Ares* to the third day of the week—the "dies Martis" of the Romans. (Chwolsohn, *Ssabier und Ssabismus*, vol. ii. p. 22.)

[8] 2 Kings xi. 5 and 33. Ashtoreth (עַשְׁתֹּרֶת), "*the* goddess of the Sidonians" ('Αστάρτη of LXX.), is to be distinguished from Ashtaroth (עַשְׁתָּרוֹת), the plural form (*ταῖς* 'Αστάρταις of LXX.), which seems to be a generic word for "false goddesses."

[9] 2 Mac. i. 13-15.

[10] The name of *Nani* is given by the Syrian lexicographer Bar-Bahlul as one of the fifteen titles applied to the planet Venus by the Arabs. The word is also found further east, as in Affghanistan, where many places are called *Bibi Nani*, after "the lady Venus." The same origin may be assigned to the Greek "Νάννιον," the name of a courtesan. (Athen. xiii. p. 576.)

ἀστήρ (Zend *starann*, Sanscrit *tara*, English *star*, Latin *stella*), though it has great names in its favour,[1] is not worthy of much attention.

Ishtar's aphrodisiac character, though it can scarcely be doubted, does not appear very clearly in the inscriptions. She is "the goddess who rejoices mankind," and her most common epithet is "Asurah," "the fortunate" or "the happy."[2] But otherwise her epithets are vague and general, insomuch that she is often scarcely distinguishable from Beltis. She is called "the mistress of heaven and earth," "the great goddess," "the queen of all the gods;" and again "the goddess of war and battle," "the queen of victory," "she who arranges battles," and "she who defends from attacks." She is also represented in the inscriptions of one king as the goddess of the chace.[3]

The worship of Ishtar was wide-spread, and her shrines were numerous. She is often called "the queen of Babylon," and must certainly have had a temple in that city.[4] She had also temples at Asshur (Kileh-Sherghat), at Arbela, and at Nineveh. It may be suspected that her symbol was the naked female form, which is not uncommon upon the cylinders. She may also be represented by the rude images in baked clay so common throughout the Mesopotamian ruins, which are generally regarded as images of Mylitta.[5]

Ishtar is sometimes coupled with Nebo in such a way as to suggest the notion that she was his wife. This, however, can hardly have been her real position in the mythology, since Nebo had, as will presently appear, another wife, Varamit, whom there

[1] As Gesenius, Movers, and Fürst. Bunsen's argument against an Iranian derivation of the name of a Semitic god (*Egypt's Place*, vol. iv. p. 349, E. T.) is perfectly sound; but his suggestion that the true etymology of Ashtoreth is *has-toreth*, "the seat of the cow," seems scarcely entitled to acceptance.

[2] Compare the Roman notion by which the best throw on the dice was called "Venus," or "jactus Venereus." (Plaut. *Asin.* v. ii. 55; Cic. *de Div.* ii. 59, &c.)

[3] This is her character in the records of Asshur-bani-pal, the son and successor of Esar-haddon.

[4] Nebuchadnezzar speaks of having "made the way of *Nana*" in Babylon, by which he probably means a way or road to her temple. (See the Standard Inscription, as given in the author's *Herodotus*, vol. ii. p. 586.)

[5] Loftus, *Chaldæa and Susiana*, ch. xviii. p. 214; Layard, *Nineveh and its Remains*, vol. ii. ch. 7.

is no reason to believe identical with Ishtar. It is most probable that the conjunction is casual and accidental, being due to special and temporary causes.[6]

Clay-images of Ishtar.

NEBO.

The last of the five planetary gods is Nebo, who undoubtedly represents the planet Mercury. His name is the same, or nearly so, both in Babylonian and Assyrian;[7] and we may perhaps assign it a Semitic derivation, from the root *nibbah*, נִבָּא, "to prophesy." It is his special function to preside over knowledge and learning. He is called "the god who possesses intelligence," "he who hears from afar," "he who teaches," or "he who teaches and instructs." In this point of view, he of course approximates to Hoa, whose son he is called in some inscriptions, and to whom he bears a general resemblance. Like Hoa, he is symbolized by the simple wedge or arrowhead,[8] the primary and essential element of cuneiform writing, to mark his joint presidency with that god over writing and literature. At the same time Nebo has, like so many of the Chaldæan gods, a number of general titles, implying divine power, which, if they had belonged to him only, would have seemed to prove him the supreme deity. He is "the Lord of lords, who has no equal in power," "the supreme chief," "the sustainer," "the supporter,"

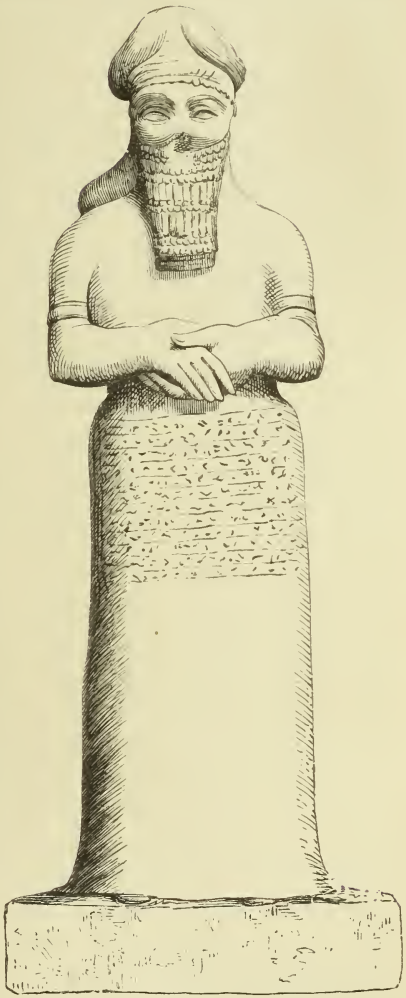
[6] The conjunction appears to belong only to the time of Nebuchadnezzar. Sir H. Rawlinson observes that, as Nebuchadnezzar never once mentions Varamit, the true wife of Nebo, in his inscriptions, it is evident she was out of favour with him, and that therefore Nana "may have been thrust temporarily into her place." (See the author's *Herodotus*, vol. i. p. 637.)

[7] The Babylonian form is *Nabiu*, the Assyrian *Nabu*. The word forms the initial element in Nabonassar, Nabopolassar, Nebuchadnezzar, Nabonidus or Labynetus, Nebuzaradan, and possibly in Laborosoarchod.

[8] In the great temple of Nebo at Borsippa there is an interior chamber, which seems to have been a chapel or oratory, all the bricks of which are found to be stamped—in addition to the ordinary legend of Nebuchadnezzar—with the figure of a wedge or arrowhead. It is probably with reference to this symbol that Nebo received the name of *Tir*, which is at once "an arrow," and the name of the planet Mercury in ancient Persian.

"the ever ready," "the guardian over the heavens and the earth," "the lord of the constellations," "the holder of the sceptre of power," "he who grants to kings the sceptre of royalty for the governance of their people." It is chiefly by his omission from many lists, and his humble place when he is mentioned together with the really great gods, that we know he was mythologically a deity of no very great eminence.

There is nothing to prove the early worship of Nebo. His name does not appear as an element in any royal appellation belonging to the Chaldæan series. Nor is there any reference to him in the records of the primeval times. Still, as he is probably of Babylonian rather than Assyrian origin,[9] and as an Assyrian king is named after him in the twelfth century B.C.,[1] we may assume that he was not unknown to the primitive people of Chaldæa, though at present their remains have furnished us with no mention of him. In later



Nebo (from a statue in the British Museum).

[9] When Nebo first appears in Assyria, it is as a foreign god, whose worship is brought thither from Babylonia. His worship was never common in the more northern country.

[1] This is the monarch whose name is read as *Mutaggil-Nebu*, the grandfather of Tiglath-Pileser I., who is mentioned in that monarch's great inscription (p. 60).

ages the chief seat of his worship was Borsippa, where the great and famous temple, known at present as the Birs-Nimrud, was dedicated to his honour. He had also a shrine at Calah (Nimrud), whence were procured the statues representing him which are now in the British Museum. He was in special favour with the kings of the great Babylonian empire, who were mostly named after him and viewed him as presiding over their house. His symbol has not yet been recognised.

The wife of Nebo, as already observed, was Varamit or Urmit—a word which perhaps means "exalted," from the root רום, "to be lifted up." No special attributes are ascribed to this goddess, who merely accompanies her husband in most of the places where he is mentioned by name.

Such, then, seem to have been the chief gods worshipped by the early Chaldæans. It would be an endless as well as an unprofitable task to give an account of the inferior deities. Their name is "Legion;" and they are, for the most part, too vague and shadowy for effective description. A vast number are merely local; and it may be suspected that where this is the case the great gods of the Pantheon come before us repeatedly, disguised under rustic titles. We have, moreover, no clue at present to this labyrinth, on which, even with greater knowledge, it would perhaps be best for us to forbear to enter; since there is no reason to expect that we should obtain any really valuable results from its exploration.

A few words, however, may be added upon the subject of the Chaldæan cosmogony. Although the only knowledge that we possess on this point is derived from Berosus, and therefore we cannot be sure that we have really the belief of the ancient people, yet, judging from internal evidence of character, we may safely pronounce Berosus' account not only archaic, but in its groundwork and essence a primeval tradition, more ancient probably than most of the gods whom we have been considering.

"In the beginning," says this ancient legend, "all was darkness and water, and therein were generated monstrous animals of strange and peculiar forms. There were men with two wings, and some even with four, and with two faces; and others with

two heads, a man's and a woman's, on one body; and there were men with the heads and the horns of goats, and men with hoofs like horses, and some with the upper parts of a man joined to the lower parts of a horse, like centaurs; and there were bulls with human heads, dogs with four bodies and with fishes' tails, men and horses with dogs' heads, creatures with the heads and bodies of horses, but with the tails of fish, and other animals mixing the forms of various beasts. Moreover, there were monstrous fish and reptiles and serpents, and divers other creatures, which had borrowed something from each other's shapes; of all which the likenesses are still preserved in the temple of Belus. A woman ruleth them all, by name Omorka, which is in Chaldee Thalatth, and in Greek Thalassa (or 'the sea'). Then Belus appeared, and split the woman in twain; and of the one half of her he made the heaven, and of the other half the earth; and the beasts that were in her he caused to perish. And he split the darkness, and divided the heaven and the earth asunder, and put the world in order; and the animals that could not bear the light perished. Belus, upon this, seeing that the earth was desolate, yet teeming with productive power, commanded one of the gods to cut off his head,[2] and to mix the blood which flowed forth with earth, and form men therewith, and beasts that could bear the light. So man was made, and was intelligent, being a partaker of the divine wisdom.[3] Likewise Belus made the stars, and the sun and moon, and the five planets."

It has been generally seen that this cosmogony bears a remarkable resemblance to the history of Creation contained in the opening chapters of the book of Genesis. Some have gone so far as to argue that the Mosaic account was derived from it.[4]

[2] There is a confusion here in Polyhistor both as reported by Eusebius (*Chron. Can.* i. 2, pp. 11, 12) and by Syncellus (*Chronograph.* vol. i. p. 53), which can scarcely have belonged to his authority, Berosus. Belus is first made to cut off his own head, and "the other gods" are said to have mixed his blood with earth and formed man; but afterwards the account contained in the text is given. It seems to me that the first account is an interpolation in the legend.

[3] I have placed this phrase a little out of its order. It occurs in the passage, which appears to me interpolated, and which is perhaps rather an explanation which Berosus gave of the legend than part of the legend itself. However, Berosus has no doubt here explained the legend rightly.

[4] So Niebuhr says (*Lectures on Ancient History*, vol. i. p. 16, E.T.), but without mentioning to what writers he alludes.

Others, who reject this notion, suggest that a certain "old Chaldee tradition" was "the basis of them both."[5] If we drop out the word "Chaldee" from this statement, it may be regarded as fairly expressing the truth. The Babylonian legend embodies a primeval tradition, common to all mankind, of which an inspired author has given us the true groundwork in the first and second chapters of Genesis. What is especially remarkable is the fidelity, comparatively speaking, with which the Babylonian legend reports the facts. While the whole tone and spirit of the two accounts,[6] and even the point of view from which they are taken, differ,[7] the general outline of the narrative in each is nearly the same. In both we have the earth at first "without form and void," and "darkness upon the face of the deep." In both the first step taken towards creation is the separation of the mixed mass, and the formation of the heavens and the earth as the consequence of such separation. In both we have light mentioned before the creation of the sun and moon; in both we have the existence of animals before man; and in both we have a divine element infused into man at his birth, and his formation "from the dust of the ground." The only points in which the narratives can be said to be at variance are points of order. The Babylonians apparently made the formation of man and of the animals which at present inhabit the earth simultaneous, and placed the creation of the sun, moon, and planets after, instead of before, that of men and animals. In other respects the Babylonian narrative either adds to the Mosaic account, as in its description of the monsters and their destruction, or clothes in mythic language, that could never have been understood literally, the truth which in Scripture is put forth with severe simplicity. The cleaving of the woman Thalatth in twain, and the beheading of Belus, are embellishments of this latter character; they are

[5] Bunsen, *Egypt's Place in Universal History*, vol. iv. p. 365, E. T.

[6] The Chaldee narrative is extravagant and grotesque; the Mosaical is miraculous, as a true account of creation must be; but it is without unnecessary marvels, and its tone is sublime and solemn.

[7] In Genesis the point of view is the divine—"*In the beginning God created* the heaven and the earth, and the *Spirit of God* moved upon the face of the waters." In the Chaldee legend the point of view is the physical and mundane, God being only brought in after a while as taking a certain part in creation.

plainly and evidently mythological; nor can we suppose them to have been at any time regarded as facts. The existence of the monsters, on the other hand, may well have been an actual belief. All men are prone to believe in such marvels; and it is quite possible, as Niebuhr supposes,[8] that some discoveries of the remains of mammoths and other monstrous forms embedded in the crust of the earth, may have given definiteness and prominency to the Chaldæan notions on this subject.

Besides their correct notions on the subject of creation, the primitive Chaldæans seem also to have been aware of the general destruction of mankind, on account of their wickedness,[9] by a Flood; and of the rebellious attempt which was made soon after the Flood to concentrate themselves in one place, instead of obeying the command to "replenish the earth"[10]—an attempt which was thwarted by means of the confusion of their speech. The Chaldæan legends embodying these primitive traditions were as follows:—

"God appeared to Xisuthrus (Noah) in a dream, and warned him that on the fifteenth day of the month Dæsius, mankind would be destroyed by a deluge. He bade him bury in Sippara, the City of the Sun, the extant writings, first and last; and build a ship, and enter therein with his family and his close friends; and furnish it with meat and drink; and place on board winged fowl, and four-footed beasts of the earth; and when all was ready, set sail. Xisuthrus asked 'Whither he was to sail?' and was told, 'To the gods, with a prayer that it might fare well with mankind.' Then Xisuthrus was not disobedient to the vision, but built a ship five furlongs (3125 feet) in length, and two furlongs (1250 feet) in breadth; and collected all that had been commanded him, and put his wife and children and close friends on board. The flood came; and as soon as it ceased, Xisuthrus let loose some birds, which, finding neither food nor a place where they could rest, came back to the ark.

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[8] *Lectures on Ancient History*, vol. i. p. 17, E. T.

[9] This is not expressly stated in the legend; but the divine warning to Xisuthrus, and the stress laid by Xisuthrus in his last words on the worship of God, seem to imply such a belief.

[10] Gen. ix. 1.

After some days he again sent out the birds,[1] which again returned to the ark, but with feet covered with mud. Sent out a third time, the birds returned no more, and Xisuthrus knew that land had reappeared: so he removed some of the covering of the ark, and looked, and behold! the vessel had grounded on a mountain. Then Xisuthrus went forth with his wife and his daughter, and his pilot,[2] and fell down and worshipped the earth,[3] and built an altar, and offered sacrifice to the gods; after which he disappeared from sight, together with those who had accompanied him. They who had remained in the ark and not gone forth with Xisuthrus, now left it and searched for him, and shouted out his name; but Xisuthrus was not seen any more. Only his voice answered them out of the air, saying, 'Worship God; for because I worshipped God, am I gone to dwell with the gods; and they who were with me have shared the same honour.' And he bade them return to Babylon, and recover the writings buried at Sippara, and make them known among men; and he told them that the land in which they then were was Armenia. So they, when they had heard all, sacrificed to the gods and went their way on foot to Babylon, and, having reached it, recovered the buried writings from Sippara, and built many cities and temples, and restored Babylon. Some portion of the ark still continues in Armenia, in the Gordiæan (Kurdish) Mountains; and persons scrape off the bitumen from it to bring away, and this they use as a remedy to avert misfortunes."[4]

"The earth was still of one language, when the primitive men, who were proud of their strength and stature, and despised the gods as their inferiors, erected a tower of vast height, in order that they might mount to heaven. And the tower was now near to heaven, when the gods (or God) caused the winds to blow and overturned the structure upon the men, and made them

[1] So in Syncellus (*Chronograph.* p. 54); but in the Armenian Eusebius we read "*other* birds" (*Chron. Can.* i. 3, p. 15).

[2] The Armenian translator turns the pilot (κυβερνήτην) into the "architect of the ship." M. Bunsen follows him (*Egypt*, &c., vol. iv. p. 371).

[3] This is plainly stated both in the Greek and in the Armenian. M. Bunsen has "threw himself upon the earth and prayed" (l. s. c.).

[4] I have inverted the order of this clause and the preceding one, to keep the connexion more clear.

speak with divers tongues; wherefore the city was called Babylon."[5]

Here again we have a harmony with Scripture of the most remarkable kind—a harmony not confined to the main facts, but reaching even to the minuter points, and one which is altogether most curious and interesting. The Babylonians have not only, in common with the great majority of nations, handed down from age to age the general tradition of the Flood, but they are acquainted with most of the particulars of the occurrence. They know of the divine warning to a single man,[6] the direction to construct a huge ship or ark,[7] the command to take into it a chosen few of mankind only,[8] and to devote the chief space to winged fowl and four-footed beasts of the earth.[9] They are aware of the tentative sending out of birds from it,[10] and of their returning twice,[11] but when sent out a third time returning no more.[12] They know of the egress from the ark by removal of some of its covering,[13] and of the altar built and the sacrifice offered immediately afterwards.[14] They know that the ark rested in Armenia;[15] that those who escaped by means of it, or their descendants, journeyed towards Babylon;[1] that there a tower was begun, but not completed, the building being stopped by divine interposition and a miraculous confusion of tongues.[2] As before, they are not content with the plain truth, but must amplify and embellish it. The size of the ark is exaggerated to an absurdity,[3] and its proportions are misrepresented in such a way as to outrage all the principles of naval architecture.[4] The

[5] Two separate versions of this legend have descended to us. They come respectively from Abydenus and Polyhistor. We have the words of the authors in Euseb. *Præp. Ev.* ix. 14, 15, and Syncell. *Chronograph.* vol. i. p. 81. We have also a translation of their words in the Armenian Eusebius (*Chron. Can.* i. 4 and 8).

[6] Gen. vi. 13.

[7] Ib. 14-16.

[8] Ib. verse 18.

[9] Ib. verse 20.

[10] Ib. viii. 7.

[11] Ib. 9-11.

[12] Ib. verse 12.

[13] Ib. verse 13: "Noah *removed the covering of the ark*, and looked, and, behold, the face of the earth was dry."

[14] Ib. viii. 20. "And Noah *builded an altar* unto the Lord, and took of every clean beast, and of every clean fowl, and *offered* burnt offerings upon the altar."

[15] Ib. verse 8: "And the ark rested . . . upon the mountains of Ararat." Ararat is the usual word for Armenia in the Assyrian inscriptions.

[1] Ib. xi. 2.

[2] Ib. 4-9.

[3] The ark is made more than *half a mile* long, whereas it was really only 300 cubits, which is at the utmost 600 feet, or less than an eighth of a mile.

[4] According to some writers, the principles of naval architecture were not concerned in the building of the ark,

translation of Xisuthrus, his wife, his daughter, and his pilot—a reminiscence possibly of the translation of Enoch—is unfitly as well as falsely introduced just after they have been miraculously saved from destruction. The story of the Tower is given with less departure from the actual truth. The building is, however, absurdly represented as an actual attempt to scale heaven;[5] and a storm of wind is somewhat unnecessarily introduced to destroy the Tower, which from the Scripture narrative seems to have been left standing. It is also especially to be noticed that in the Chaldæan legends the whole interest is made narrow and local. The Flood appears as a circumstance in the history of Babylonia; and the priestly traditionists, who have put the legend into shape, are chiefly anxious to make the event redound to the glory of their sacred books, which they boast to have been the special objects of divine care, and represent as a legacy from the antediluvian ages. The general interests of mankind are nothing to the Chaldæan priests, who see in the story of the Tower simply a local etymology, and in the Deluge an event which made the Babylonians the sole possessors of primeval wisdom.[6]

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since (as they say) "it was not a ship, but a house" (Kitto's *Biblical Cyclopædia*, vol. i. p. 212). But would "a floating house," not shaped shipwise, have been safe amid the winds and currents of so terrible a crisis? The Chaldæans, despite the absurd proportions that they assign it, term the ark "a ship," and give it "a pilot."

[5] The expression in Gen. xi. 4, "a tower whose top may reach unto heaven," is a mere common form of Oriental hyperbole, applied to any great height. (See Deut. i. 28, where the spies are said to have brought back word that the cities of the Canaanites were great, and "walled up to heaven.") But in the Chaldee version of the story we are told that the men built the tower "in order that they might mount to heaven" (ὅπως εἰς τὸν οὐρανὸν ἀναβῶσι).

[6] Baron Bunsen observes with reason —"The general contrast between the Biblical and the Chaldee version is very great. What a purely special local character, legendary and fabulous, without ideas, does it display in every point which it does not hold in common with the Hebrew!" (*Egypt's Place*, vol. iv. p. 374, E. T.)

CHAPTER VIII.

HISTORY AND CHRONOLOGY.

"The beginning of his kingdom was Babel, and Erech, and Accad, and Calneh, in the land of Shinar."—GEN. x. 10.

THE establishment of a Cushite kingdom in Lower Babylonia dates probably from (at least) the twenty-fourth or twenty-fifth century before our era. Greek traditions[1] assigned to the city of Babylon an antiquity nearly as remote; and the native historian, Berosus, spoke of a Chaldæan dynasty as bearing rule anterior to B.C. 2250. Unfortunately the works of this great authority have been lost; and even the general outline of his chronological scheme, whereof some writers have left us an account,[2] is to a certain extent imperfect; so that, in order to obtain a definite chronology for the early times, we are forced to have recourse, in some degree, to conjecture. Berosus declared that six dynasties had reigned in Chaldæa since the great flood of Xisuthrus, or Noah. To the first, which consisted of 86 kings, he allowed the extravagant period of 34,080 years.

[1] Simplicius relates (*Comment. in Aristot. de Cœlo*, ii. p. 123) that Callisthenes, the friend of Alexander, sent to Aristotle from Babylon a series of stellar observations made in that city, which reached back 1903 years before the conquest of the place by Alexander. (B.C. 331+1903 = B.C. 2234.) Philo-Byblius, according to Stephen (ad voc. Βαβυλών), made Babylon to have been built 1002 years before Semiramis, whom he considered contemporary with, or a little anterior to, the Trojan War. (*Fragm. Hist. Græc.* vol. iii. p. 563.) We do not know his date for this last event, but supposing it to be that of the Parian Chronicle, B.C. 1218, we should have B.C. 2220 for the building of the city, according to him. Again, Berosus and Critodemus are said by Pliny (*H. N.* vii. 56) to have declared that the Babylonians had recorded their stellar observations upon bricks for 480 years before the era of Phoroneus. At least the passage may be so understood. (See the *Journal of Asiatic Society*, vol. xv. p. 222.) Now the date of Phoroneus, according to Clinton (*F. H.* vol. i. p. 139), is B.C. 1753; and B.C. 1753+480 gives B.C. 2233.

[2] The most authentic account seems to be that which Eusebius copied from Polyhistor (*Chronica*, i. 4). Syncellus is far less to be trusted, on account of his elaborate systematizing.

Evechoüs, the founder of the dynasty, had enjoyed the royal dignity for 2400 years, and Chomasbêlus, his son and successor, had reigned 300 years longer than his father. The other 84 monarchs had filled up the remaining space of 28,980 years—their reigns thus averaging 345 years apiece. It is clear that these numbers are unhistoric; and though it would be easy to reduce them within the limits of credibility by arbitrary suppositions—as, for instance, that the years of the narrative represent months or days[3]—yet it may reasonably be doubted whether we should in this way be doing any service to the cause of historic truth. The names Evechoüs and Chomasbêlus seem mythic rather than real; they represent personages in the Babylonian Pantheon, and can scarcely have been borne by men. It is likely that the entire series of names partook of the same character, and that, if we possessed them, their bearing would be found to be, not historic, but mythological. We may parallel this dynasty of Berosus, where he reckons kings' reigns by the cyclical periods of *sosses* and *ners*, with Manetho's dynasties of Gods and Demigods in Egypt, where the sum of the years is nearly as great.[4]

It is necessary, then, to discard as unhistorical the names and numbers assigned to his first dynasty by Berosus, and to retain from this part of his scheme nothing but the fact which he lays down of an ancient Chaldæan dynasty having ruled in Babylonia, prior to a conquest, which led to the establishment of a second dynasty, termed by him Median.

The scheme of Berosus then, setting aside his numbers for the first period, is—according to the best extant authorities[5]—as follows:—

Dynasty	I.	of (?) Chaldæan kings	(?) years.
„	II.	„ 8 Median „	234 (?) „
„	III.	„ 11 „	48 (?) „
„	IV.	„ 49 Chaldæan „	458 „

[3] This view is taken by Mr. William Palmer in his Appendix on 'Babylonian and Assyrian Antiquities.' (See his *Egyptian Chronicles*, vol. ii. pp. 942, 943.)

[4] Manetho assigns 24,925 years to the reigns of Gods, Demigods, and Manes, who ruled Egypt before Menes—the first historical king. (See *Fragm. Hist. Gr.* vol. ii. p. 528.)

[5] Eusebius and Josephus.

Dynasty V.	of 9 Arabian kings	245 years.
„ VI.	„ 45 (?) „	526 „
Reign of Pul	.. ..	? „
Dynasty VII.	of (?) (?) kings	? „
„ VIII.	„ 6 Chaldæan „	87 „

It will be observed that this table contains certain defects and weaknesses, which greatly impair its value, and prevent us from constructing upon it, without further aid, an exact scheme of chronology. Not only does a doubt attach to one or two of the number—to the years, *i.e.* of the second and third dynasty[6]—but in two cases we have no numbers at all set down for us, and must supply them from conjecture, or from extraneous sources, before we can make the scheme available. Fortunately in the more important case, that of the seventh dynasty, the number of years can be exactly supplied without any difficulty. The Canon of Ptolemy covers, in fact, the whole interval between the reign of Pul and the close of the Babylonian Empire, giving for the period of the seventh dynasty 13 reigns in 122 years, and for that of the eighth 5 reigns in 87 years. The length of the reign of Pul can, however, only be supplied from conjecture. As it is not an unreasonable supposition that he may have reigned 28 years, and as this number harmonises well with the chronological notices of the monuments, we shall venture to assume it, and thus complete the scheme which the fragments of Berosus leave imperfect.

BEROSUS' CHRONOLOGICAL SCHEME COMPLETED.

		Years.	B.C.	B.C.
Dynasty I.	of ? Chaldæan kings	?	?	2286
„ II.	„ 8 Median „	234	2286	2052
„ III.	„ 11 ? „	48	2052	2004
„ IV.	„ 49 Chaldæan „	458	2004	1546
„ V.	„ 9 Arabian „	245	1546	1301
„ VI.	„ 45 ? „	526	1301	775
Reign of Pul (Chaldæan king)		28	775	747
Dynasty VII.	of 13 ? kings	122	747	625
„ VIII.	„ 6[7] Babylonian „	87	625	538

[6] The 48 years of the third dynasty are not in the text of the Armenian Eusebius, but in the margin only. The text of the same authority assigns 224 years to the second dynasty, but the margin gives 234.

[7] The Canon mentions five only of these kings, omitting one (Laborosoarchod), because he reigned less than a full year.

This scheme, in which there is nothing conjectural except the length of the reign of Pul, receives very remarkable confirmation from the Assyrian monuments. These inform us, first, that there was a conquest of Babylon by a Susianian monarch 1635 years before the capture of Susa by Asshur-bani-pal, the son of Esarhaddon;[8] and, secondly, that there was a second conquest by an Assyrian monarch 600 years before the occupation of Babylon by Esarhaddon's father, Sennacherib. Now Sennacherib's occupation of Babylon was in B.C. 702; and 600 years before this brings us to B.C. 1302, within a year of the date which the scheme assigns to the accession of the seventh dynasty. Susa was taken by Asshur-bani-pal probably in B.C. 651; and 1635 years before this is B.C. 2286, or the exact year marked in the scheme for the accession of the second (Median) dynasty. This double coincidence can scarcely be accidental; and we may conclude, therefore, that we have in the above table at any rate a near approach to the scheme of Babylonian chronology as received among both the Babylonians and Assyrians in the seventh century before our era.

Whether the chronology is wholly trustworthy is another question. The evidence both of the classical writers[9] and of the monuments is to the effect that exact chronology was a subject to which the Babylonians and Assyrians paid great attention. The "Canon of Ptolemy," which contained an exact Babylonian computation of time from B.C. 747 to B.C. 331 is generally allowed to be a most authentic document, and one on which we may place complete reliance.[1] The "Assyrian Canon," which gives the years of the Assyrian monarchs from B.C. 911 to B.C. 660, appears to be equally trustworthy. How much further exact notation went back, it is impossible to say. All that we know is, first, that the later Assyrian monarchs believed they had means of fixing the exact date of events in their own history and in that of Babylon up to a time distant from their own as much

[8] G. Smith in *Zeitschrift für Aegyptische Sprache*, November, 1868.

[9] Herod. i. 95; Aristot. *De Cœlo*, ii. 12, § 3; Simplic. *Comment. ad Aristot. de Cœlo*, ii. p. 123.

[1] Mr. Bosanquet is almost the only chronologer who still disputes the accuracy of this document. (See his *Messiah the Prince*, Appendix, pp. 455-8, 2nd edition.)

as sixteen or seventeen hundred years; and, secondly, that the chronology which results from their statements and those of Berosus is moderate, probable, and in harmony with all the knowledge which we obtain of the East from other sources. It is proposed therefore, in the present volumes, to accept the general scheme of Berosus as, in all probability, not seriously in error; and to arrange the Chaldæan, Assyrian, and Babylonian history on the framework, which it furnishes.

Chaldæan history may therefore be regarded as opening upon us at a time anterior, at any rate by a century or two,[2] to B.C. 2286. It was then that Nimrod, the son or descendant of Cush, set up a kingdom in Lower Mesopotamia, which attracted the attention of surrounding nations. The people, whom he led, came probably by sea; at any rate, their earliest settlements were on the coast; and Ur or Hur, on the right bank of the Euphrates, at a very short distance from its embouchure, was the primitive capital. The "mighty hunter" rapidly spread his dominion inland, subduing or expelling the various tribes by which the country was previously occupied. His kingdom extended northwards, at least as far as Babylon, which (as well as Erech or Huruk, Accad, and Calneh) was first founded by this monarch.[3] Further historical details of his reign are wanting; but the strength of his character and the greatness of his achievements are remarkably indicated by a variety of testimonies, which place him among the foremost men of the Old World, and guarantee him a never-ending remembrance. At least as early as the time of Moses his name had passed into a proverb. He was known as "the mighty hunter before the Lord"[4]—an expression which had probably a double meaning, implying at once skill and bravery in the pursuit and destruc-

[2] Syncellus gave 225 years to the first Chaldæan dynasty in Babylonia; but it is difficult to say on what basis he went. He admitted seven kings, to whom he gave the names of Evechius, Chomasbelus, Porus, Nechubas, Nabius, Oniballus, and Zinzerus. These names do not much encourage us to view the list as historical. Three of them belong to the late Babylonian period. One only (Chomasbelus, perhaps Shamas-Bel) has at all the air of a name of this early time.

[3] Gen. x. 10.

[4] Gen. x. 9: "He was a mighty hunter before the Lord; wherefore *it is said*, Even as Nimrod, the mighty hunter before the Lord."

tion of wild beasts, and also a genius for war and success in his aggressions upon men. In his own nation he seems to have been deified, and to have continued down to the latest times one of the leading objects of worship, under the title of *Bilu-Nipru* or Bel-Nimrod,[5] which may be translated "the god of the chace," or "the great hunter." One of his capitals, Calneh, which was regarded as his special city, appears afterwards to have been known by his name (probably as being the *chief* seat of his worship in the early times); and this name it still retains, slightly corrupted. In the modern Niffer we may recognise the Talmudical Nopher, and the Assyrian *Nipur*, which is *Nipru*, with a mere metathesis of the two final letters. The fame of Nimrod has always been rife in the country of his domination. Arab writers record a number of remarkable traditions, in which he plays a conspicuous part;[6] and there is little doubt but that it is in honour of his apotheosis that the constellation Orion bears in Arabian astronomy the title of *El Jabbar*, or "the giant."[7] Even at the present day his name lives in the mouth of the people inhabiting Chaldæa and the adjacent regions, whose memory of ancient heroes is almost confined to three—Nimrod, Solomon, and Alexander. Wherever a mound of ashes is to be seen in Babylonia or the adjoining countries, the local traditions attach to it the name of *Nimrud* or *Nimrod*;[8] and the most striking ruins now existing in the Mesopotamian valley, whether in its upper or its lower portion, are made in this way monuments of his glory.[9]

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[5] The Greek forms, Νεβρὼδ and Νεβρὼθ, serve to connect *Nipru* with נִמְרֹד. The native root is thought to be *napar*, "to pursue," or "cause to flee." (See the author's *Herodotus*, vol. i. p. 597.)

[6] Yacut declares that Nimrod attempted to mount to heaven on the wings of an eagle, and makes Niffer (Calneh) the scene of this occurrence. (*Lex. Geograph.* in voc. *Niffer.*) It is supposed that we have here an allusion to the building of the tower of Babel. The Koran contains a story of Nimrod's casting Abraham into a fiery furnace.

[7] The Arabic *Jabbar* represents the Hebrew גִּבֹּר, which is the epithet applied to Nimrod in Gen. x. 9. The identification of Nimrod with Orion is noted by Greek writers. (See John of Antioch, Fr. 3; *Pasch. Chron.* vol. i. p. 64; John of Malala, p. 17; Cedrenus, vol. i. p. 27; &c.) Orion is a "mighty hunter," even in Homer. (See Odyss. xi. 572-575.)

[8] *Journ. of Asiatic Soc.* vol. xv. p. 230.

[9] The great temple of Borsippa is known as the *Birs-i-Nimrud*; and the

Of the immediate successors of Nimrod we have no account that even the most lenient criticism can view as historical. It appears that his conquest was followed rapidly by a Semitic emigration from the country—an emigration which took a northerly direction. The Assyrians withdrew from Babylonia, which they still always regarded as their parent land, and, occupying the upper or non-alluvial portion of the Mesopotamian plain, commenced the building of great cities in the tract upon the middle Tigris.[1] The Phœnicians removed from the shores of the Persian Gulf, and, journeying towards the north-west, formed settlements upon the coast of Canaan,[2] where they became a rich and prosperous people. The family of Abraham, and probably other Aramæan families, ascended the Euphrates,[3] withdrawing from a yoke which was oppressive, or at any rate unpleasant. Abundant room was thus made for the Cushite immigrants, who rapidly established their preponderance over the whole of the southern region. As war ceased to be the necessary daily occupation of the new comers, civilisation and the arts of life began to appear. The reign of the "Hunter" was followed, after no long time, by that of the "Builder." A monumental king, whose name is read doubtfully as Urkham[4] or Urukh, belongs almost certainly to this early dynasty, and may be placed next in succession, though at what interval we cannot say, to Nimrod. He is beyond question the earliest Chaldæan monarch of whom any remains have been obtained in the country. Not only are his bricks found in a lower position than any others, at the very foundations of buildings, but they are of a rude and coarse make, and the inscriptions upon them contrast most remarkably, in the simplicity of the style of writing used and in their general archaic

simple name *Nimrud* is given to probably the most striking heap of ruins in the ancient Assyria.

[1] Gen. x. 11, 12.

[2] Herod. i. 1; vii. 89; Strab. xvi. 3 § 4; Justin. xviii. 3, § 2; Plin. *H. N.* iv. 22; Dionys. Per. l. 906.

[3] Gen. xi. 31.

[4] This conjectural reading of the name has led to a further conjecture, viz. that in this monumental sovereign we have the real original of the "Orchamus" of Ovid, whom he represents as the seventh successor of Belus in the government of Babylon (*Metaph.* iv. 212-3). But the phonetic value of the monograms, in which the names of the early Chaldæan kings are written, is so wholly uncertain that it seems best to abstain from speculations, which may have their basis struck from under them at any moment.

type, with the elaborate and often complicated symbols of the later monarchs.[5] The style of Urukh's buildings is also primitive and simple in the extreme; his bricks are of many sizes, and ill fitted together;[6] he belongs to a time when even the baking of bricks seems to have been comparatively rare, for sometimes he employs only the sun-dried material;[7] and he is altogether unacquainted with the use of lime mortar, for which his substitute is moist mud, or else bitumen. There can be little doubt that he stands at the head of the present series of monumental kings, another of whom probably reigned as early as B.C. 2286. As he was succeeded by a son, whose reign seems to have been of the average length, we must place his accession at least as early as B.C. 2326. Possibly it may have fallen a century earlier.

It is as a builder of gigantic works that Urukh is chiefly known to us. The basement platforms of his temples are of an enormous size; and though they cannot seriously be compared with the Egyptian pyramids, yet indicate the employment for many years of a vast amount of human labour in a very unproductive sort of industry. The Bowariyeh mound at Warka is 200 feet square, and about 100 feet high.[8] Its cubic contents, as originally built, can have been little, if at all, under 3,000,000 feet; and above 30,000,000 of bricks must have been used in its construction. Constructions of a similar character, and not very different in their dimensions, are proved by the bricks composing them to have been raised by the same monarch at Ur, Calneh or Nipur, and Larancha or Larsa, which is perhaps Ellasar.[9] It is evident, from the size and number of these works, that their erector had the command of a vast amount of "naked human strength," and did not scruple to employ that strength in constructions from which no material benefit was derivable, but which were probably designed chiefly to extend his own fame and perpetuate his glory. We may gather from this that

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[5] See Sir H. Rawlinson's remarks in the author's *Herodotus*, vol. i. p. 425; and compare above, pp. 63, 64.

[6] *Journal of Asiatic Society*, vol. xv. pp. 261-263; Loftus, *Chaldæa and Susiana*, p. 168.

[7] As in the Bowariyeh ruin at Warka (Loftus, p. 167).

[8] Supra, pp. 75, 76.

[9] Gen. xiv. 1.

he was either an oppressor of his people, like some of the Pyramid Kings in Egypt,[10] or else a conqueror, who thus employed the numerous captives carried off in his expeditions. Perhaps the latter is the more probable supposition; for the builders of the great fabrics in Babylonia and Chaldæa do not seem to have left behind them any character of oppressiveness, such as attaches commonly to those monarchs who have ground down their own people by servile labour.

The great buildings of Urukh appear to have been all designed for temples. They are carefully placed with their angles facing the cardinal points,[1] and are dedicated to the Sun, the Moon, to Belus (Bel-Nimrod), or to Beltis. The temple at Mugheir was built in honour of the Moon-god, *Sin* or *Hurki*, who was the tutelary deity of the city. The Warka temple was dedicated to Beltis. At Calneh or Nipur, Urukh erected two temples, one to Beltis and one to Belus. At Larsa or Ellasar the object of his worship was the Sun-god, San or Sansi. He would thus seem to have been no special devotee of a single god, but to have divided out his favours very fairly among the chief personages of the Pantheon.

It has been observed that both the inscriptions of this king, and his architecture, are of a rude and primitive type. Still in neither case do we seem to be brought to the earliest dawn of civilisation or of art. The writing of Urukh has passed out of the first or hieroglyphic stage, and entered the second or transition one, when pictures are no longer attempted, but the lines or wedges follow roughly the old outline of the objects.[2] In his architecture, again, though there is much that is rude and simple, there is also a good deal which indicates knowledge and experience. The use of the buttress is understood; and the buttress is varied according to the material.[3] The importance of sloping the walls of buildings inwards to resist interior

[10] Herod. ii. 124, 128; Arist. Pol. vii. 11.

[1] Loftus, *Chaldæa and Susiana*, p. 246.

[2] Supra, pp. 63, 64.

[3] Compare the slight buttresses, only 13 inches thick, supporting the Mugheir temple, which has a facing of burnt brick to the depth of ten feet, with the strong ones at Warka (where unburnt brick is the material used), which project seven feet and a half from the central mass. (Loftus, pp. 128, 129, and p. 169.)

pressure is thoroughly recognised.[4] Drains are introduced to carry off moisture, which must otherwise have been very destructive to buildings composed mainly, or entirely, of crude brick. It is evident that the builders whom the king employs, though they do not possess much genius, have still such a knowledge of the most important principles of their art as is only obtained gradually by a good deal of practice. Indeed the very fact of the continued existence of their works at the distance of forty centuries is sufficient evidence that they possessed a considerable amount of architectural skill and knowledge.

We are further, perhaps, justified in concluding, from the careful emplacement of Urukh's temples, that the science of astronomy was already cultivated in his reign, and was regarded as having a certain connexion with religion. We have seen that the early worship of the Chaldæans was to a great extent astral[5] —a fact which naturally made the heavenly bodies special objects of attention. If the series of observations, which Callisthenes sent to Aristotle, dating from B.C. 2234, was in reality a record, and not a mere calculation backwards of the dates at which certain celestial phenomena must have taken place, astronomical studies must have been pretty well advanced at a period not long subsequent to Urukh.

Nor must we omit to notice, if we would estimate aright the condition of Chaldæan art under this king, the indications furnished by his signet-cylinder. So far as we can judge from the representation, which is all that we possess of this relic, the drawing on the cylinder was as good and the engraving as well executed as any work of the kind, either of the Assyrian or of the later Babylonian period. Apart from the inscription, this work of art has nothing about it that is rude or primitive. The elaboration of the dresses and headgear of the figures has been already noticed.[6] It is also worthy of remark, that the principal figure sits on an ornamental throne or chair, of particularly tasteful construction, two legs of which appear to have been modelled after those of the bull or ox. We may conclude,

[4] Loftus, p. 128. [5] See above, ch. vii. p. 111. [6] Supra, pp. 105 and 106.

without much danger of mistake, that in the time of the monarch who owned this seal, dresses of delicate fabric and elaborate pattern, and furniture of a *recherché* and elegant shape, were in use among the people over whom he exercised dominion.

The chief capital city of Urukh appears to have been Ur. He calls himself "King of Ur and Kingi-Accad"; and it is at Ur that he raises his principal buildings. Ur, too, has furnished the great bulk of his inscriptions. Babylon was not yet a place of much importance, though it was probably built by Nimrod. The second city of the Empire was Huruk or Erech: other places of importance were Larsa (Ellasar?) and Nipur or Calneh.

Urukh appears to have been succeeded in the kingdom by a son, whose name it is proposed to read as Elgi or Ilgi. Of this prince our knowledge is somewhat scanty. Bricks bearing his name have been found at Ur (Mugheir) and at Tel Eid, near Erech, or Warka; and his signet-cylinder has been recovered, and is now in the British Museum. We learn from inscriptions of Nabonidus that he completed some of the buildings at Ur, which had been left unfinished by his father; while his own bricks inform us that he built or repaired two of the principal temples at Erech. On his signet-cylinder he takes the title of "King of Ur."

After the death of Ilgi, Chaldæan history is for a time a blank. It would seem, however, that, while the Cushites were establishing themselves in the alluvial plain towards the mouths of the two great rivers, there was growing up a rival power, Turanian, or Ario-Turanian,[7] in the neighbouring tract at the foot of the Zagros mountain-chain. One of the most ancient, perhaps *the*

[7] At this early period in the world's history, the differences between the great families of human speech were but very partially developed. Language was altogether in an agglutinate, rather than in an inflected, state. The intricacies of Arian—even the lesser intricacies of Semitic grammar—had not been invented. Languages differed one from another chiefly in their vocabularies. What we observe with respect to the Susianians or Elamites is, that while their vocabulary is mainly Turanian, it also contains numerous words which were continued in the later Arian speech. For instance, *Nakhunta* is beyond a doubt the *Anahita* of the Persians and the *Anaitis* of the Greeks. *Kudur* is the same word as the Persian *chitra*, "sprung from" (compare Zend *chithra*, "seed"). *Mabuk* is, perhaps, *Mabog*, which is formed from the two thoroughly Arian roots, *ma*, "mother," and *bog* (Old Pers. *baga*, Slavon. *bog*, *bogie*), "God."

most ancient, of all the Asiatic cities, was Susa, the Elamitic capital, which formed the centre of a nationality that endured from the twenty-third century B.C. to the time of Darius Hystaspis (B.C. 520), when it sank finally under the Persians.[8] A king of Elam, whose court was held at Susa, led, in the year B.C. 2286 (or a little earlier[9]), an expedition against the cities of Chaldæa, succeeded in carrying all before him, ravaged the country, took the towns, plundered the temples, and bore off into his own country, as the most striking evidence of victory, the images of the deities which the Babylonians especially reverenced.[10] This king's name, which was Kudur-Nakhunta, is thought to be the exact equivalent of one which has a world-wide celebrity, to wit, Zoroaster.[1] Now, according to Polyhistor[2] (who here certainly repeats Berosus), Zoroaster was the first of those eight Median kings who composed the second dynasty in Chaldæa, and occupied the throne from about B.C. 2286 to 2052. The Medes are represented by him as capturing Babylon at this time, and imposing themselves as rulers upon the country. Eight kings reign in the space of 234 (or 224) years, after which we hear no more of Medes, the sovereignty being (as it would seem) recovered by the natives. The coincidences of the conquest, the date, the foreign sovereignty, and the name Zoroaster, tend to identify the Median dynasty of Berosus with a period of Susianian supremacy,[3] which the

[8] See *Behist. Inscr.* col. i. pars. 16, 17; col. ii. pars. 3, 4. The transfer of the Persian capital to Susa, which took place soon after this, was probably in part an acknowledgment of the superior antiquity and dignity of the Elamitic capital.

[9] The date of Asshur-bani-pal's conquest of Susa is doubtful. It may have been as early as B.C. 661. (See Mr. G. Smith's paper in the *Zeitschrift für Aegyptische Sprache* for Nov. 1868, p. 116.) The conquest of Chaldæa by Kudur-Nakhunta may therefore have fallen as early as B.C. 2296.

[10] *Zeitschrift*, l. s. c.

[1] It was long ago suggested by Sir H. Rawlinson that the etymology of this name is to be sought in the languages of the Semitic rather than in those of the Arian family (*Journal of Asiatic Society*, vol. xv. p. 227, note [2]); and that its true meaning is "the seed of Ishtar (Venus)." If so, *Kudur-Nakhunta* would exactly correspond to *Zoro-aster* (or *Ziru-Ishtar*). See p. 159, note [7].

[2] Ap. Syncell. *Chronograph.* p 78, B. Compare Mos. Choren. *Hist. Armen.* i. 5. "Zoroastrem Magum . . . qui fuit Medorum principium."

[3] By calling his second dynasty "Median," Berosus probably only meant to say that it came from the mountain tract east of Babylonia, which in his own day had been for so many ages the seat of Medo-Persic power. Susiana had in his time been completely absorbed into Persia. (Strabo, xv. 3 § 2.)

monuments show to have been established in Chaldæa at a date not long subsequent to the reigns of Urukh and Ilgi, and to have lasted for a considerable period.

There are five monarchs known to us who may be assigned to this dynasty. The first is the Kudur-Nakhunta above named, who conquered Babylonia and established his influence there, but continued to hold his court at Susa, governing his conquest probably by means of a viceroy or tributary king. Next to him, at no great interval, may be placed Kudur-Lagamer, the Chedor-laomer of Scripture,[4] who held a similar position to Kudur-Nakhunta, reigning himself in Elam, while his vassals, Amraphel, Arioch, and Tidal (or Turgal [5]) held the governments respectively of Shinar (or Upper Babylonia), Ellasar (Lower Babylonia or Chaldæa), and the Goïm or the nomadic races. Possessing thus an authority over the whole of the alluvial plain, and being able to collect together a formidable army, Kudur-Lagamer resolved on an expedition up the Euphrates, with the object of extending his dominion to the Mediterranean Sea and to the borders of Egypt. At first his endeavours were successful. Together with his confederate kings, he marched as far as Palestine, where he was opposed by the native princes, Bera, king of Sodom, Birsha, king of Gomorrah, Shinab, king of Admah, Shemeber, king of Zeboiim, and the king of Bela or Zoar.[6] A great battle was fought between the two confederated armies in the vale of Siddim towards the lower end of the Dead Sea.[7] The invaders were victorious; and for twelve years, Bera and his allies were content to own themselves subjects of the Elamitic king, whom they "served" for that period.[8] In the

[4] Gen. xiv. 1.

[5] For the Tidal (תרעל) of the present Hebrew text, the LXX. have Thargal (Θαργάλ), which implies a reading of תרעל in their copies. Turgal would be significative in early Babylonian, meaning "the great chief." (See Smith's *Biblical Dictionary*, ad voc. TIDAL.)

[6] Gen. xiv. 2.

[7] The scene of the battle seems to have been that part of the plain which was afterwards submerged, when the area of the Dead Sea was extended. Compare the expression (Gen. xiv. 3), "All these were joined together in the vale of Siddim, *which is* the salt sea;" and see Mr. Ffoulkes's article on GOMORRAH in Dr. Smith's *Biblical Dictionary*, vol. i. pp. 709, 710.

[8] "Twelve years they served Chedor-laomer, and in the thirteenth year they rebelled." (Gen. xiv. 4.)

thirteenth year they rebelled: a general rising of the western nations seems to have taken place;[9] and in order to maintain his conquests it was necessary for the conqueror to make a fresh effort. Once more the four eastern kings entered Syria, and, after various successes against minor powers, engaged a second time in the valley of Siddim with their old antagonists, whom they defeated with great slaughter; after which they plundered the chief cities belonging to them.[10] It was on this occasion that Lot, the nephew of Abraham, was taken prisoner. Laden with booty of various kinds, and encumbered with a number of captives, male and female,[1] the conquering army set out upon its march home, and had reached the neighbourhood of Damascus, when it was attacked and defeated by Abraham, who with a small band ventured under cover of night to fall upon the retreating host, which he routed and pursued to some distance.[2] The actual slaughter can scarcely have been great; but the prisoners and the booty taken had to be surrendered; the prestige of victory was lost; and the result appears to have been that the Mesopotamian monarch relinquished his projects, and, contenting himself with the fame acquired by such distant expeditions, made no further attempt to carry his empire beyond the Euphrates.[3]

The other three kings who may be assigned to the Elamitic dynasty are a father, son, and grandson, whose names appear upon the native monuments of Chaldæa in a position which is thought to imply that they were posterior to the kings Urukh and Ilgi, but of greater antiquity than any other monarchs who have left memorials in the country. Their names are read as Sinti-shil-khak, Kudur-Mabuk, and Arid-Sin. Of Sinti-shil-

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[9] Among the nations chastised by Chedor-laomer on his second invasion we find the Rephaim or "Giants," the Zuzim, the Emim, the Horites, the Amorites, and the Amalekites. (Gen. xiv. 5-7.)

[10] Gen. xiv. 9-12. [1] Gen. xiv. 16.

[2] May not the tradition, that Abraham was king of Damascus (Nic. Dam. Fr. 30), be connected with this exploit? It could scarcely have been grounded on the mere fact that he had for steward a native of that city. (Gen. xv. 2.)

[3] The expression in verse 17 of the Authorised Version, "the *slaughter* of Chedor-laomer, and of the kings which were with him," is over-strong. The Hebrew phrase כִּיהַכּוֹת does not mean more than "defeat" or "overthrow."

khak nothing is known beyond the name.[4] Kudur-Mabuk is said in the inscriptions of his son to have "enlarged the dominions of the city of Ur;" and on his own bricks he bears the title of *Apda Martu*, which probably means "Conqueror of the West."[5] We may presume therefore that he was a warlike prince, like Kudur-Nakhunta and Kudur-Lagamer; and that, like the latter of these two kings, he made war in the direction of Syria, though he may not have carried his arms so far as his great predecessor. He and his son both held their court at Ur,[6] and, though of foreign origin, maintained the Chaldæan religion unchanged, making additions to the ancient temples, and worshipping the Chaldæan gods under the old titles.

The circumstances which brought the Elamitic dynasty to a close, and restored the Chaldæan throne to a line of native princes, are unrecorded by any historian; nor have the monuments hitherto thrown any light upon them. If we may trust the numbers of the Armenian Eusebius,[7] the dynasty which succeeded, ab. B.C. 2052, to the Susianian (or Median), though it counted eleven kings, bore rule for the short space of forty-eight years only. This would seem to imply either a state of great internal disturbance, or a time during which viceroys, removable at pleasure and often removed, governed the country under some foreign suzerain.[8] In either case, the third dynasty of Berosus may be said to mark a transition period between the time of foreign subjection and that of the recovery by the native Chaldæans of complete independence.

To the fourth Berosian dynasty, which held the throne for 458

[4] It is not, perhaps, quite certain that Sinti-shil-khak was a Chaldæan monarch. His name appears only in the inscriptions of his son, Kudur-Mabuk, where he is not given the title of king.

[5] *Martu* certainly means either "the West" generally, or Syria in particular, which was the most western country known to the early Babylonians. *Apda* is perhaps connected with the Hebrew root אבד, which in the Hiphil has the sense of "destroy" or "ravage."

[6] The inscriptions of Kudur-Mabuk and Arid-Sin have been found only at Mugheir, the ancient Ur. (See *British Mus. Series*, vol. i. Pl. 2, No. iii., and Pl. 5, No. xvi.)

[7] It is true that the number 48 occurs only in the margin of the Armenian MS. But the inserter of that number must have had it before him in some copy of Eusebius; for he could not have conjectured it from the number of the kings.

[8] Compare the rapid succession in the seventh dynasty, which is given (partially) in the Canon of Ptolemy, more fully in the fragments of Berosus and Polyhistor.

years, from about B.C. 2004 to B.C. 1546, the monuments enable us to assign some eight or ten monarchs, whose inscriptions are characterised by a general resemblance, and by a character intermediate between the extreme rudeness of the more ancient and the comparative elegance and neatness of the later legends. Of these kings one of the earliest was a certain Ismi-dagon, the date of whose reign we are able to fix with a near approach to exactness. Sennacherib, in a rock inscription at Bavian, relates that in his tenth year (which was B.C. 692) he recovered from Babylon certain images of the gods which had been carried thither by *Merodach-iddin-akhi*, King of Babylon, after his defeat of Tiglath-Pileser, King of Assyria, 418 years previously. And the same Tiglath-Pileser relates, that he rebuilt a temple in Assyria, which had been taken down 60 years before, after it had lasted 641 years from its foundation by Shamas-Vul, son of Ismi-dagon.[9] It results from these numbers, that Ismi-dagon was king as early as B.C. 1850, or, probably, a little earlier.[10]

The monuments furnish little information concerning Ismi-dagon, beyond the evidence which they afford of the extension of this king's dominion into the upper part of the Mesopotamian valley, and especially into the country known in later times as Assyria. The fact that Shamas-Vul, the son of Ismi-dagon, built a temple at Kileh-Sherghat, implies necessarily that the Chaldæans at this time bore sway in the upper region. Shamas-Vul appears to have been, not the eldest, but the second son of the monarch, and must be viewed as ruling over Assyria in the capacity of viceroy, either for his father or his brother. Such evidence as we possess of the condition of Assyria about this period seems to show that it was weak and insignificant, administered ordinarily by Babylonian satraps or governors, whose office was one of no great rank or dignity.[1]

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[9] See the author's *Herodotus*, vol. i. Essay vi. p. 433, note [1].

[10] If Sennacherib's 10th year is B.C. 692, Tiglath-Pileser's defeat must have been in B.C. 1110. His restoration of the temple was certainly earlier, for it was at the very beginning of his reign —say B.C. 1120. Add the 60 years during which the building had been in ruins and the 641 during which it had stood, and we have B.C. 1821 for the building of the original temple by Shamas-Vul. The date of his father's accession should be at least 30 years earlier—or B.C. 1851.

[1] Three or four tablets of Babylonian

In Chaldæa Ismi-dagon was succeeded by a son, whose name is read, somewhat doubtfully, as Gunguna or Gurguna.[2] This prince is known to us especially as the builder of the great public cemeteries which now form the most conspicuous objects among the ruins of Mugheir, and the construction of which is so remarkable.[3] Ismi-dagon and his son must have occupied the Chaldæan throne during most of the later half of the nineteenth century before our era—from about B.C. 1850 to B.C. 1800.

Hitherto there has been no great difficulty in determining the order of the monumental kings, from the position of their bricks in the principal Chaldæan ruins and the general character of their inscriptions. But the relative place occupied in the series by the later monarchs is rendered very doubtful by their records being scattered and unconnected, while their styles of inscription vary but slightly. It is most unfortunate that no writer has left us a list corresponding in Babylonian history with that which Manetho put on record for Egyptian; since we are thus compelled to arrange our names in an order which rests on little more than conjecture.[4]

The monumental king who is thought to have approached the nearest to Gurguna is Naram-Sin, of whom a record has been discovered at Babylon,[5] and who is mentioned in a late inscription[6] as the builder, in conjunction with his father, of a temple at the city of Agana. His date is probably about B.C. 1750. The

satraps have been discovered at Kileh-Sherghat. The titles assumed are said to "belong to the most humble class of dignities." (Sir H. Rawlinson, in the author's *Herodotus*, vol. i. p. 448, note 7.)

[2] For inscriptions of Gurguna, see *British Museum Series*, vol. i. pl. 2, No. vi. Some doubt has been entertained as to whether this prince was the son or the grandson of Ismi-dagon, but on the whole the verdict of cuneiform scholars has been in favour of the interpretation of these inscriptions which makes him the son.

[3] See above, ch. v. pp. 86-90.

[4] Berosus gave no doubt the complete list; but his names have not been preserved to us. The brief Chaldæan list in Syncellus (p. 169) probably came from him; but the names seem to have belonged to the first or mythical dynasty. One might have hoped to obtain some help from Ctesias's Assyrian list, as it went back at least as far as B.C. 2182, when Assyria was a mere province of the Chaldæan Empire. But it presents every appearance of an absolute forgery, being composed of Arian, Semitic, Egyptian, and Greek appellations, with a sprinkling of terms borrowed from geography.

[5] *Brit. Mus. Series*, vol. i. pl. 3, No. 7.

[6] The fact is recorded by Nabonidus—the Labynetus of Herodotus—on the famous Mugheir cylinder. (*Brit. Mus. Series*, vol. i. pl. 69; col. 2, l. 30.)

seat of his court may be conjectured to have been Babylon, which had by this time risen into metropolitan consequence. It is evident that, as time went on, the tendency was to remove the seat of government and empire to a greater distance from the sea. The early monarchs reign at Ur (Mugheir), and leave no traces of themselves further north than Niffer. Sin-Shada holds his court at Erech (Warka), twenty-five miles above Mugheir; while Naram-Sin is connected with the still more northern city of Babylon. We shall find a similar tendency in Assyria, as it rose into power. In both cases we may regard the fact as indicative of a gradual spread of empire *towards the north*, and of the advance of civilisation and settled government in that direction.

A king, who disputes the palm of antiquity with Naram-Sin, has left various records at Erech or Warka,[7] which appears to have been his capital city. It is proposed to call him Sin-Shada.[8] He constructed, or rather re-built, the upper terrace of the Bowariyeh ruin, or great temple, which Urukh raised at Warka to Beltis; and his bricks are found in the doorway of another large ruin (the *Wuswas*) at the same place; it is believed, however, that in this latter building they are not *in situ*, but have been transferred from some earlier edifice.[9] His reign fell probably in the latter part of the 18th century B.C.

Several monarchs of the *Sin* series—*i. e.* monarchs into whose names the word *Sin*, the name of the Moon-god, enters as an element—now present themselves. The most important of them has been called Zur-Sin. This king erected some buildings at Mugheir; but he is best known as the founder of the very curious town whose ruins bear at the present day the name of Abu-Shahrein. A description of the principal buildings at this site has been already given.[10] They exhibit certain improvements on the architecture of the earlier times, and appear to have been very richly ornamented, at least in parts. At the

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7 *Brit. Mus. Series*, vol. i. pl. 3, No. 8.

8 Sin-Shada seems to have immediately succeeded a queen. He calls himself "son of Bilat**at," which is certainly a female name.

9 Loftus, *Chaldæa and Susiana*, ch. xvi. p. 184.

10 See above, pp. 79, 80.

same time they contain among their *débris* remarkable proofs of the small advance which had as yet been made in some of the simplest arts. Flint knives and other implements, stone hatchets, chisels, and nails, are abundant in the ruins; and though the use of metal is not unknown, it seems to have been comparatively rare. When a metal is found, it is either gold or bronze, no trace of iron (except in ornaments of the person) appearing in any of the Chaldæan remains. Zur-Sin, Rim-Sin,[1] and three or four other monarchs of the *Sin* series, whose names are imperfect or uncertain, may be assigned to the period included between B.C. 1700 and B.C. 1546.

Another monarch, and the only other monumental name that we can assign to Berosus's fourth dynasty, is a certain Nur-Vul, who appears by the Chaldæan sale-tablets to have been the immediate predecessor of Rim-Sin, the last king of the *Sin* series. Nur-Vul has left no buildings or inscriptions; and we seem to see in the absence of all important monuments at this time a period of depression, such as commonly in the history of nations precedes and prepares the way for a new dynasty or a conquest.

The remaining monumental kings belong almost certainly to the fifth, or Arabian, dynasty of Berosus, to which he assigns the period of 245 years—from about B.C. 1546 to B.C. 1300. That the list comprises as many as fifteen names, whereas Berosus speaks of nine Arabian kings only, need not surprise us, since it is not improbable that Berosus may have omitted kings who reigned for less than a year.[2] To arrange the fifteen monarchs[3] in chronological order is, unfortunately, impossible. Only three of them have left monuments. The names of the others are

[1] Rim-Sin has left a very fine inscription on a small black tablet, found at Mugheir. (*Brit. Mus. Series*, vol. i. pl. 3; No. 10.)

[2] As Ptolemy did in his Canon.

[3] Some writers have exaggerated the number of the names to twenty-four or twenty-five. (See Oppert, *Expédition scientifique en Mésopotamie*, vol. i. p. 276; and compare Lenormant, *Manuel d'Histoire ancienne de l'Orient*, vol. ii. pp. 25, 32.) But this is by misunderstanding a tablet on which nine of them occur. M. Lenormant obtains *thirteen* successors to Khammu-rabi (p. 32) by not seeing that the tablet is bilingual, and counting in five *translations* of names which he has already reckoned. M. Oppert does not fall into this error, but unduly enlarges his royal list by counting twelve names from the obverse of the tablet, which there is no ground for regarding as royal names at all.

found on linguistic and other tablets, in a connection which rarely enables us to determine anything with respect to their relative priority or posteriority.[4] We can, however, definitely place seven names, two at the beginning and five towards the end of the series, thus leaving only eight whose position in the list is undetermined.

The series commences with a great king, named Khammu-rabi, who was probably the founder of the dynasty, the "Arab" chief, who, taking advantage of the weakness and depression of Chaldæa under the later monarchs of the fourth dynasty, by intrigue or conquest established his dominion over the country, and left the crown to his descendants. Khammu-rabi is especially remarkable as having been the first (so far as appears) of the Babylonian monarchs to conceive the notion of carrying out a system of artificial irrigation in his dominions, by means of a canal derived from one of the great rivers. The *Nahar-Khammu-rabi* ("River of Khammu-rabi"), whereof he boasts in one of his inscriptions,[5] was no doubt, as he states, "a blessing to the Babylonians"—it "changed desert plains into well-watered fields; it spread around fertility and abundance"—it brought a whole district, previously barren, into cultivation, and it set an example, which the best of the later monarchs followed, of a mode whereby the productiveness of the country might be increased to an almost inconceivable extent.

Khammu-rabi was also distinguished as a builder. He repaired the great temple of the Sun at Senkereh,[6] and constructed for himself a new palace at Kalwadha, or Chilmad, not

[4] Eight royal names follow Khammu-rabi on the tablet above mentioned (see last note). It might have been supposed that they would occur in chronological order. But, in fact, Khammu-rabi's successor, his son, Samsu-iluna, is omitted; and Kurri-galzu, the son of Purna-puriyas, who was the third king after his father, is put in the fifth place before him. The order of the names cannot, therefore, be chronological.

[5] This inscription is on a white stone in the Museum of the Louvre. It has been published with a comment by M. Ménant (*Inscriptions de Hammourabi, roi de Babylone*, Paris, 1863), and has also been translated by M. Oppert in the *Expédition*, vol. i. pp. 267, 268. M. Lenormant assumes without reason (*Manuel*, vol. ii. p. 31) the identity of the *Nahar-Khammurabi* with the *Nahr-Malcha* of Nebuchadnezzar.

[6] See *Brit. Mus. Series*, vol. i. pl. 4, No. xv.; Inscr. 2 (translated by M. Oppert, *Expédition*, vol. i. p. 267); and compare the cylinder of Nabonidus. (*Brit. M. Series*, vol. i. pl. 69, col. ii. l. 1.)

far from the modern Baghdad.[7] His inscriptions have been found at Babylon, at Zerghul, and at Tel-Sifr; and it is thought probable that he made Babylon his ordinary place of residence. His reign probably covered the space from about B.C. 1546 to B.C. 1520, when he left his crown to his son, Samsu-iluna. Of this monarch our notices are exceedingly scanty. We know him only from the Tel-Sifr clay tablets, several of which are dated by the years of his reign. He held the crown probably from about B.C. 1520 to B.C. 1500.

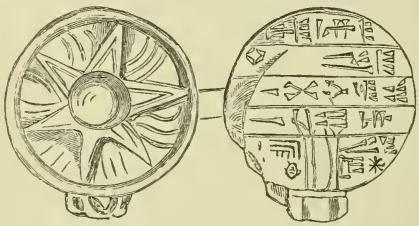
About sixty or seventy years after this we come upon a group of names, belonging almost certainly to this same dynasty, which possess a peculiar interest, inasmuch as they serve to connect the closing period of the First, or Chaldæan, with the opening portion of the Second, or Assyrian, Monarchy. A succession of five Babylonian monarchs is mentioned on an Assyrian tablet, the object of which is to record the synchronous history of the two countries.[8] These monarchs are contemporary with independent Assyrian princes, and have relations towards them which are sometimes peaceful, sometimes warlike. Kara-in-das, the first of the five, is on terms of friendship with Asshur-bel-nisi-su, king of Assyria, and concludes with him a treaty of alliance. This treaty is renewed between his successor, Purna-puriyas, and Buzur-Asshur, the successor of Asshur-bel-nisi-su on the throne of Assyria. Not long afterwards a third Assyrian monarch, Asshur-upallit, obtains the crown, and Purna-puriyas not only continues on the old terms of amity with him, but draws the ties which unite the two royal families closer by marrying Asshur-upallit's daughter. The issue of this marriage is a prince named Kara-khar-das, who, on the death of Purna-puriyas, ascends the throne of Babylon. But now a revolution occurs. A certain Nazi-bugas rises in revolt, puts Kara-khar-das to death, and succeeds in making himself king. Hereupon Asshur-upallit takes up arms, invades Babylonia, defeats and kills Nazi-bugas, and places upon the throne a brother of the murdered Kara-khar-das, a younger son of Purna-puriyas, by name Kurri-galzu,

[7] *Brit. M. Series*, vol. i. pl. 4, No. xv. Ins. 3.

[8] Ibid. vol. ii. p. 65.

or Durri-galzu. These events may be assigned with much probability to the period between B.C. 1440 and B.C. 1380.[10]

Of the five consecutive monarchs presented to our notice in this interesting document, two are known to us by their own inscriptions. Memorials of Purna-puriyas and Kurri-galzu, very similar in their general character, have been found in various parts of Chaldæa. Those of Purna-puriyas come from Senkereh,[1] the ancient Larsa, and consist of bricks, showing that he repaired the great temple of the Sun at that city—which was originally built by Urukh. Kurri-galzu's memorials comprise bricks from Mugheir (Ur) and Akkerkuf,[2] together with his signet-seal, which was found at Baghdad in the year 1860.[3] It also appears by an inscription of Nabonidus[4] that he repaired a temple at the city of Agana, and left an inscription there.



Signet-seal of Kurri-galzu, King of Babylon.

But the chief fame of Kurri-galzu arises from his having been the founder of an important city. The remarkable remains at Akkerkuf, of which an account has been given in a former chapter,[5] mark the site of a town of his erection. It is conjectured with some reason that this place is the Dur-Kurri-galzu of the later Assyrian inscriptions—a place of so much consequence in the time of Sargon that he calls it "the key of the country."

The remaining monarchs, who are on strong grounds of pro-

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[10] The position of the kings, Asshur-bel-nisi-su, Buzur-Asshur, and Asshur-upallit, in the Assyrian list, has been definitely fixed by Mr. G. Smith's discovery in 1869 of an inscription of Pudiel, in which he states that Asshur-upallit was his grandfather. We have thus now a continuous succession from Asshur-bel-nisi-su to Tiglathi-Nin, the conqueror of Babylon; and as this conquest is fixed to about B.C. 1300, we can count back to Asshur-bel-nisi-su by allowing an average of twenty years to a reign, and approximately fix his date as from B.C. 1440 to 1420.

[1] *Brit. Mus. Series*, vol. i. pl. 4, No. xiii. [2] Ibid. pl. 4, No. xiv.

[3] The inscription on the seal is read as follows:—"Kurri-galzu, king of . . . . . , son of Purna-puriyas, king of Babylon." (See *Brit. Mus. Series*, vol. i., Table of Contents, pl. 4, No. xiv.)

[4] Ibid. pl. 69, col. ii. l. 32.

[5] See above, p. 21. The bricks of Kurri-galzu are not found, however, in the great ruin, which is most probably a Parthian work.

KINGS OF CHALDÆA.

Dynasty.	B.C.	to B.C.	Kings.	Events, &c.
I. (Chaldæan)	..	2286	Nimrod	Founds the Empire.
			* * * *	
			* * * *	
			Urukh	Builds numerous temples.
			Ilgi (son).	
			* * * *	
II. (Elamite)	2286	2052	Kudur-Nakhunta (Zoro-aster)	Conquers Chaldæa, B.C. 2286.
			* * * *	
			Kudur-Lagamer ..	Contemporary with Abraham. Makes two expeditions into Syria.
			* * * *	
			Sinti-shil-khak.	
			Kudur-Mabuk (son)	Wars in Syria.
			Arid-Sin (son).	
			* * * *	
III.	2052	2004	* * * *	
			* * * *	
IV. (Chaldæan)	2004	1546	* * * *	
			* * * *	
			Ismi-dagon	Reigns from about B.C. 1850 to 1830.
			Gurguna (son) ..	His brother, Shamas-Vul, rules in Assyria.
			* * * *	
			Naram-Sin.	
			* * * *	
			Bilat * * at (a queen).	
			Sin-Shada (son).	
			* * * *	
			Zur-Sin.	
			* * * *	
			Nur-Vul	Reigns from about B.C. 1586 to 1566.
			Rim-Sin	Reigns from about B.C. 1566 to 1546.
V. (Arab)	1546	1301	Khammu-rabi ..	Reigns from about B.C. 1546 to 1520.
			Samsu-iluna (son)	Reigns from about B.C. 1520 to 1500.
			* * * *	
			* * * *	
			Kara-in-das	Contemporary with Asshur-bel-nisi-su, ab. B.C. 1440.
			Purna-puriyas ..	Contemporary with Buzur-Asshur, B.C. 1420–1400.
			Kara-khar-das (son)	
			Nazi-bugas	Contemporary with Asshur-upallit, B.C. 1400–1380.
			Kurri-galzu (brother of Kara-khar-das)	
			* * * *	
		1300	* * * *	Chaldæa conquered by Tiglathi-Nin.

bability, etymological and other, assigned to this dynasty are Saga-raktiyas,[6] the founder of a Temple of the male and female Sun at Sippara,[7] Ammidi-kaga, Simbar-sikhu, Kharbi-sikhu, Ulam-puriyas, Nazi-urdas, Mili-sikhu, and Kara-kharbi. Nothing is known at present of the position which any of these monarchs held in the dynasty, or of their relationship to the kings previously mentioned, or to each other. Most of them are known to us simply from their occurrence in a bilingual list of kings, together with Khammu-rabi, Kurri-galzu, and Purna-puriyas. The list in question appears not to be chronological.[8]

Modern research has thus supplied us with memorials (or at any rate with the names) of some thirty kings, who ruled in the country properly termed Chaldæa at a very remote date. Their antiquity is evidenced by the character of their buildings and of their inscriptions, which are unmistakably rude and archaic. It is further indicated by the fact that they are the builders of certainly the most ancient edifices whereof the country contains any trace. The probable connexion of two of them[9] with the only king known previously from good authority to have reigned in the country during the primitive ages confirms the conclusion drawn from the appearance of the remains themselves; which is further strengthened by the monumental dates assigned to two[10] of them, which place them respectively in the twenty-third and the nineteenth century before our era. That the kings belong to one series, and (speaking broadly) to one time, is evidenced by the similarity of the titles which they use, by their uninterrupted worship of the same gods, and by the general resemblance of the language and mode of writing which they employ.[11]

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[6] Saga-raktiyas is by some regarded as the father of Naram-Sin (Oppert, *Expédition*, vol. i. p. 273, note [2]; Lenormant, *Manuel*, vol. ii. p. 27). But the foundation of this notion is the identification of a temple bearing the name of *Ulmas* at Agana, with a temple of the same name at Sippara. Agana and Sippara must, however, have been distinct cities.

[7] *Brit. Mus. Series*, vol. i. pl. 69, col. iii. l. 20. [8] See above, p. 168, note [4].

[9] Kudur-Nakhunta, and Kudur-Mabuk, who are certainly to be *connected* with the Chedor-laomer (Kudur-Lagamer) of Scripture. (See above, pp. 162, 163.)

[10] Kudur-Nakhunta and Ismi-dagon. (See page 164.)

[11] Sir H. Rawlinson says:—"All the kings whose monuments are found in ancient Chaldæa used the same language and the same form of writing; they professed the same religion, inhabited the same cities, and followed the same traditions. Temples built in the earliest

That the time to which they belong is anterior to the rise of Assyria to greatness appears from the synchronism of the later monarchs of the Chaldæan with the earliest of the Assyrian list, as well as from the fact that the names borne by the Babylonian kings after Assyria became the leading power in the country are not only different, but of a different type. If it be objected that the number of thirty kings is insufficient for the space over which they have in our scheme been spread, we may answer that it has never been supposed by any one that the twenty-nine or thirty kings, of whom distinct mention has been made in the foregoing account, are a complete list of all the Chaldæan sovereigns. On the contrary, it is plain that they are a very incomplete list, like that which Herodotus gives of the kings of Egypt, or that which the later Romans possessed of their early monarchs. The monuments themselves present indications of several other names of kings, belonging evidently to the same series,[1] which are too obscure or too illegible for transliteration. And there may, of course, have been many others of whom no traces remain, or of whom none have been as yet found. On the other hand, it may be observed, that the number of the early Chaldæan kings reported by Polyhistor[2] is preposterous. If sixty-eight consecutive monarchs held the Chaldæan throne between B.C. 2286 and B.C. 1546, they must have reigned on an average less than eleven years apiece. Nay, if forty-nine ruled between B.C. 2004 and B.C. 1546, covering a space of little more than four centuries and a half—which is what Berosus is made to assert—these later monarchs cannot even have reigned so long as *ten* years each, an average which may be pronounced quite impossible in a settled monarchy such as the Chaldæan. The probability would seem to be that Berosus has been misreported, his numbers having suffered corruption during their passage through so many hands,[3] and being in this instance quite untrustworthy. We

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times received, the veneration of successive generations, and were repaired and adorned by a long series of monarchs, even down to the time of the Semitic Nabonidus." (Rawlinson's *Herodotus*, vol. i. Essay vi. p 441.)

[1] See the author's *Herodotus*, vol. i. p. 440.

[2] See the fragments of this writer preserved by Eusebius (*Chron. Can.* pars i. c. 4).

[3] The words of Polyhistor are re-

may conjecture that the actual number of reigns which he intended to allow his fourth dynasty was nineteen,[4] or at the utmost twenty-nine, the former of which numbers would give the common average of twenty-four years, while the latter would produce the less usual but still possible one of sixteen years.

The monarchy, which we have had under review, is one, no doubt, rather curious from its antiquity than illustrious from its great names, or admirable for the extent of its dominions. Less ancient than the Egyptian, it claims the advantage of priority over every empire or kingdom which has grown up upon he soil of Asia. The Arian, Turanian, and even the Semitic tribes appear to have been in the nomadic condition, when the Cushite settlers in Lower Babylonia betook themselves to agriculture, erected temples, built cities, and established a strong and settled government. The leaven which was to spread by degrees through the Asiatic peoples was first deposited on the shores of the Persian Gulf at the mouth of the "Great River;"[5] and hence civilisation, science, letters, art, extended themselves northward, and eastward, and westward. Assyria, Media, Semitic Babylonia, Persia, as they derived from Chaldæa the character of their writing,[6] so were they indebted to the same country for their general notions of government and administration, for their architecture, their decorative art, and still more for their science and literature. Each people no doubt modified in some measure the boon received, adding more or less of its own to the common inheritance. But Chaldæa stands forth as the great parent and

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ported to us by Eusebius in a work (his *Chronica*) the original of which is lost, and which we have only in an Armenian version. Polyhistor himself does not appear to have read the work of Berosus. He derives his knowledge of it from Apollodorus. Thus we have Berosus at fifth hand—through Apollodorus, Polyhistor, Eusebius, and the Armenian translator. Hence the excellent advice of C. Müller—"Igitur cum per tot manus migraverint quæ ad nos perdurarunt fragmenta, haud miraberis variis modis verba Berosi deformata esse, cavendumque ne Beroso imputemus quæ sunt imputanda excerptoribus." (*Fragm. Hist. Gr.* vol. ii. p. 496.)

[4] The change of AΘ into ΔΘ is one very likely to occur, and has numerous parallels.

[5] Gen. xv. 18; Deut. i. 7; Josh. i. 4.

[6] The alphabets, as well as the languages, of these various races differ; but, as all assume the wedge as the ultimate element out of which their letters are formed, it seems almost certain that they learnt the art of writing from one another. If so, Chaldæa has on every ground the best claim to be regarded as the teacher of the others.

original inventress of Asiatic civilisation, without any rival that can reasonably dispute her claims.

The great men of the Empire are Nimrod, Urukh, and Chedorlaomer. Nimrod, the founder, has the testimony of Scripture that he was "a mighty one in the earth;"[7] "a mighty hunter;"[8] the establisher of a "kingdom," when kingdoms had scarcely begun to be known; the builder of four great and famous cities, "Babel, and Erech, and Accad, and Calneh, in the land of Shinar,"[9] or Mesopotamia. To him belongs the merit of selecting a site peculiarly fitted for the development of a great power in the early ages of the world,[10] and of binding men together into a community which events proved to possess within it the elements of prosperity and permanence. Whether he had, indeed, the rebellious and apostate character which numerous traditions, Jewish, Arabian, and Armenian,[1] assign to him; whether he was in reality concerned in the building of the tower related in the eleventh chapter of the Book of Genesis,[2] we have no means of positively determining. The language of Scripture with regard to Nimrod is laudatory rather than the contrary;[3] and it would seem to have been from a misapprehension of the *nexus* of the Mosaic narrative that the traditions above mentioned originated.[4] Nimrod, "the mighty hunter *before the Lord*," had

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[7] Gen. x. 8. [8] Ib. verse 9.

[9] Ib. verse 10.

[10] In later times, when civilisation was more advanced, less fruitful tracts may, by calling forth men's powers, have produced the most puissant races (see Herod. ix. ad fin.); but in the first ages only fertile regions could nurture and develop greatness. Elsewhere man's life was a struggle for bare existence.

[1] Josephus makes Nimrod the prime mover in the building of the tower (*Ant. Jud.* i. 4, § 2). The Targums generally take the same view. Some of the Arabic traditions have been already mentioned. (Supra, p. 154, note [6].) The Armenian account will be found in Moses of Chorene, who, identifying Nimrod with Belus, proceeds to describe him as the chief of the Giants, by whom the tower was built, proud and fierce, and of insatiable ambition, engaged in perpetual wars with his neighbours. (*Hist. Armen.* i. 6-10.)

[2] Gen. xi. 1-9.

[3] Nimrod is called "a mighty one in the earth," and "a mighty hunter *before the Lord*." Many commentators have observed that the phrase in italics is almost always used in a good sense, implying the countenance and favour of God, and his blessing on the work which is said to have been done "before" him, or "in his sight."

[4] Commentators seem generally to have supposed that the building, or attempt to build, described in Gen. xi. 1-9, is the building of Babel ascribed to Nimrod in Gen. x. 10. But this cannot be so: for in Gen. xi. we are told, "they *left off* to build the city." The truth seems to be that the tenth chapter is parenthetical, and the author in ch. xi. takes up the narrative from ch. ix., going back to a time not long after the Deluge.

not in the days of Moses that ill reputation which attached to him in later ages, when he was regarded as the great Titan or Giant, who made war upon the gods, and who was at once the builder of the tower, and the persecutor who forced Abraham to quit his original country. It is at least doubtful whether we ought to allow any weight at all to the additions and embellishments with which later writers, so much wiser than Moses, have overlaid the simplicity of his narrative.

Urukh, whose fame may possibly have reached the Romans,[5] was the great Chaldæan *architect*. To him belongs, apparently, the conception of the Babylonian temple, with its rectangular base, carefully placed so as to present its angles to the four cardinal points, its receding stages, its buttresses, its drains, its sloped walls, its external staircases for ascent, and its ornamental shrine crowning the whole. At any rate, if he was not the first to conceive and erect such structures, he set the example of building them on such a scale and with such solidity as to secure their long continuance, and render them well nigh imperishable. There is no appearance in all Chaldæa, so far as it has been explored, of any building which can be even probably assigned to a date anterior to Urukh. The attempted tower was no doubt earlier; and it *may* have been a building of the same type;[6] but there is no reason to believe that any remnant, or indeed any trace, of this primitive edifice, has continued to exist to our day. The structures of the most archaic character throughout Chaldæa are, one and all, the work of King Urukh; who was not content to adorn his metropolitan city only with one of the new edifices, but added a similar ornament to each of the great cities within his empire.[7]

The great builder was followed shortly by the great *conqueror*. Kudur-Lagamer, the Elamitic prince, who, more than twenty centuries before our era, having extended his dominion over Babylonia and the adjoining regions, marched an army a dis-

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[5] If, that is, the Orchamus of Ovid, is really to be connected with the word now read as Urukh.

[6] See the article on the "Tower of Babel" in Smith's *Dictionary of the Bible*. vol. i. pp. 158-160.

[7] See above, p. 156.

tance of 1200 miles[8] from the shores of the Persian Gulf to the Dead Sea, and held Palestine and Syria in subjection for twelve years, thus effecting conquests which were not again made from the same quarter till the time of Nebuchadnezzar, fifteen or sixteen hundred years afterwards, has a good claim to be regarded as one of the most remarkable personages in the world's history—being, as he is, the forerunner and prototype of all those great Oriental conquerors who from time to time have built up vast empires in Asia out of heterogeneous materials, which have in a longer or a shorter space successively crumbled to decay. At a time when the kings of Egypt had never ventured beyond their borders, unless it were for a foray in Ethiopia,[9] and when in Asia no monarch had held dominion over more than a few petty tribes, and a few hundred miles of territory, he conceived the magnificent notion of binding into one the manifold nations inhabiting the vast tract which lies between the Zagros mountain-range and the Mediterranean. Lord by inheritance (as we may presume) of Elam and Chaldæa or Babylonia, he was not content with these ample tracts, but, coveting more, proceeded boldly on a career of conquest up the Euphrates valley, and through Syria, into Palestine. Successful here, he governed for twelve years dominions extending near a thousand miles from east to west, and from north to south probably not much short of five hundred. It is true that he was not able to *hold* this large extent of territory; but the attempt and the success temporarily attending it are memorable circumstances, and were probably long held in remembrance through Western Asia, where they served as a stimulus and incentive to the ambition of later monarchs.

These, then, are the great men of the Chaldæan empire. Its extent, as we have seen, varied greatly at different periods. Under the kings of the first dynasty—to which Urukh and Ilgi belonged—it was probably confined to the alluvium, which seems

[8] The march would necessarily be along the Euphrates to the latitude (nearly) of Aleppo, and then down Syria to the Dead Sea. This is 1200 miles. The direct distance by the desert is not more than 800 miles; but the desert cannot be crossed by an army.

[9] See the "Historical Essay" of Sir G. Wilkinson, in the author's *Herodotus*, vol. ii. pp. 341-351.

then to have been not more than 300 miles in length along the course of the rivers,[10] and which is about 70 or 80 miles in breadth from the Tigris to the Arabian desert. In the course of the second dynasty it received a vast increase, being carried in one direction to the Elamitic mountains, and in another to the Mediterranean, by the conquests of Kudur-Nakhunta and Chedorlaomer. On the defeat of the latter prince it again contracted, though to what extent we have no means of determining. It is probable that Elam or Susiana, and not unlikely that the Euphrates valley, for a considerable distance above Hit, formed parts of the Chaldæan Empire after the loss of Syria and Palestine. Assyria occupied a similar position, at any rate from the time of Ismi-dagon, whose son built a temple at Kileh-Sherghat or Asshur. There is reason to think that the subjection of Assyria continued to the very end of the dynasty, and that this region, whose capital was at Kileh-Sherghat, was administered by viceroys deriving their authority from the Chaldæan monarchs.[1] These monarchs, as has been already observed,[2] gradually remove their capital more and more northwards; by which it would appear as if their empire tended to progress in that direction.

The different dynasties which ruled in Chaldæa prior to the establishment of Assyrian influence, whether Chaldæan, Susianian, or Arabian, seem to have been of kindred race; and, whether they established themselves by conquest, or in a more peaceful manner, to have made little, if any, change in the language, religion, or customs of the Empire. The so-called Arab kings, if they are really (as we have supposed), Khammu-rabi and his successors, show themselves by their names and their inscriptions to be as thoroughly proto-Chaldæan as Urukh or Ilgi. But with the commencement of the Assyrian period the case is altered. From the time of Tiglathi-Nin (about B.C. 1300), the Assyrian conqueror who effected the subjugation of Babylon, a strong Semitising influence made itself felt in the lower country—the monarchs cease to have Turanian or Cushite and

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[10] Compare ch. i. p. 4. [1] Supra, p. 164, note [1]. [2] P. 166.

bear instead thoroughly Assyrian names; inscriptions, when they occur, are in the Assyrian language and character. The entire people seems by degrees to have been Assyrianised, or at any rate Semitised—assimilated, that is, to the stock of nations to which the Jews, the northern Arabs, the Aramæans or Syrians, the Phœnicians, and the Assyrians belong. Their language fell into disuse, and grew to be a learned tongue, studied by the priests and the *literati;* their Cushite character was lost, and they became, as a people, scarcely distinguishable from the Assyrians.[3] After six centuries and a half of submission and insignificance, the Chaldæans, however, began to revive and recover themselves—they renewed the struggle for national independence, and in the year B.C. 625 succeeded in establishing a second kingdom, which will be treated of in a later volume, as the fourth or Babylonian Monarchy. Even when this monarchy met its death at the hands of Cyrus the Great, the nationality of the Chaldæans was not swept away. We find them recognised under the Persians,[4] and even under the Parthians,[5] as a distinct people. When at last they cease to have a separate national existence, their name remains; and it is in memory of the successful cultivation of their favourite science by the people of Nimrod from his time to that of Alexander, that the professors of astronomical and astrological learning under the Roman Emperors receive, from the poets and historians of the time, the appellation of "Chaldæans."[6]

[3] Hence Herodotus always regards the Babylonians as Assyrians, and Babylonia as a district of Assyria. (See i. 106, 178, 188, 192, &c.; iii. 92 and 155.)

[4] Herod. vii. 63.

[5] Strab. xvi. 1, § 6; Plin. *H. N.* vi. 28.

[6] Juv. *Sat.* vi. 552; x. 94; Tacit. *Ann.* ii. 27; iii. 22; vi. 20, &c.; Sueton. *Vit. Vitell.* 14; *Vit. Domit.* 14.

THE SECOND MONARCHY.

ASSYRIA.

CHAPTER I.

DESCRIPTION OF THE COUNTRY.

"Τριτημορίη ἡ Ἀσσυρίη χώρη τῇ δυνάμει τῆς ἄλλης Ἀσίης."—HEROD. i. 192.

THE site of the second—or great Assyrian—monarchy was the upper portion of the Mesopotamian valley. The cities which successively formed its capitals lay, all of them, upon the middle Tigris; and the heart of the country was a district on either side that river, enclosed within the thirty-fifth and thirty-seventh parallels. By degrees these limits were enlarged; and the term, Assyria, came to be used, in a loose and vague way, of a vast and ill-defined tract extending on all sides from this central region. Herodotus[1] considered the whole of Babylonia to be a mere district of Assyria. Pliny[2] reckoned to it all Mesopotamia. Strabo[3] gave it, besides these regions, a great portion of Mount Zagros (the modern Kurdistan) and all Syria as far as Cilicia, Judæa, and Phœnicia.

If, leaving the conventional, which is thus vague and un-

[1] Herod. i. 106, 192; iii. 92. Ἀπὸ Βαβυλῶνος δὲ καὶ τῆς λοιπῆς Ἀσσυρίης.

[2] Plin. *Hist. Nat.* vi. 26. "Mesopotamia tota Assyriorum fuit.".

[3] Strabo says: "The Assyrians adjoin on Persia and Susiana; for by this name they call Babylonia, and a vast tract of the surrounding country, including Aturia (which contains Nineveh) and Apollonias, and the Elymæans, and the Parætacæ, and the district about Mount Zagros called Chalonitis, and the plain tracts near Nineveh—Dolomené, and Calachené, and Chazené, and Adiabené—and the Mesopotamian nations about the Gordiæans, and the Mygdonians about Nisibis, as far as the passage of the Euphrates, and a great part of the country beyond the Euphrates (which is in possession of the Arabs), and the people now called by way of distinction Syrians, reaching to Cilicia, and Phœnicia, and Judæa, and to the sea over against the sea of Egypt and the gulf of Issus." (*Geograph.* xvi. 1, § 1.)

satisfactory, we seek to find certain natural limits which we may regard as the proper boundaries of the country, in two directions we seem to perceive an almost unmistakable line of demarcation. On the east the high mountain-chain of Zagros, penetrable only in one or two places, forms a barrier of the most marked character, and is beyond a doubt the natural limit for which we are looking. On the south a less striking, but not less clearly defined, line—formed by the abutment of the upper and slightly elevated plain on the alluvium of the lower valley[4]—separates Assyria from Babylonia, which is best regarded as a distinct country. In the two remaining directions, there is more doubt as to the most proper limit. Northwards, we may either view Mount Masius as the natural boundary, or the course of the Tigris from Diarbekr to Til, or even perhaps the Armenian mountain-chain north of this portion of the Tigris, from whence that river receives its early tributaries.[5] Westward, we might confine Assyria to the country watered by the affluents of the Tigris,[6] or extend it so as to include the Khabour and its tributaries, or finally venture to carry it across the whole of Mesopotamia, and make it be bounded by the Euphrates. On the whole it is thought that in both the doubtful cases the wider limits are historically the truer ones. Assyrian remains cover the entire country between the Tigris and the Khabour, and are frequent on both banks of the latter stream, giving unmistakable indications of a long occupation of that region by the great Mesopotamian people. The inscriptions show that even a wider tract was in process of time absorbed by the conquerors; and if we are to draw a line between the country actually taken into Assyria, and that which was merely conquered and held in subjection, we can select no better boundary than the Euphrates westward, and northward the snowy mountain-chain known to the ancients as Mons Niphates.

If Assyria be allowed the extent which is here assigned to

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[4] Supra, p. 3.

[5] Supra, p. 9.

[6] This is the division adopted in the geographical essay, contained in vol. i. of the author's *Herodotus* (p. 569). It was thought most suitable to a general review of the geography of Western Asia; but is less adapted to a special account of the empire of the Assyrians.

her, she will be a country, not only very much larger than Chaldæa or Babylonia, but, positively, of considerable dimensions. Reaching on the north to the thirty-eighth and on the south to the thirty-fourth parallel, she had a length diagonally from Diarbekr to the alluvium of 350 miles, and a breadth between the Euphrates and Mount Zagros varying from about 300 to 170 miles. Her area was probably not less than 75,000 square miles, which is more than double that of Portugal, and not much below that of Great Britain. She would thus from her mere size be calculated to play an important part in history; and the more so, as during the period of her greatness scarcely any nation, with which she came in contact, possessed nearly so extensive a territory.

Within the limits here assigned to Assyria, the face of the country is tolerably varied. Possessing, on the whole, perhaps, a predominant character of flatness, the territory still includes some important ranges of hills, while on two sides it abuts upon lofty mountain-chains. Towards the north and east it is provided by nature with an ample supply of water; rills everywhere flowing from the Armenian and Kurdish ranges, which soon collect into rapid and abundant rivers. The central, southern, and western regions are, however, less bountifully supplied; for though the Euphrates washes the whole western and south-western frontier, it spreads fertility only along its banks; and though Mount Masius sends down upon the Mesopotamian plain a considerable number of streams, they form in the space of 200 miles between Balis and Mosul but two rivers, leaving thus large tracts to languish for want of the precious fluid. The vicinity of the Arabian and Syrian deserts is likewise felt in these regions, which, left to themselves, tend to acquire the desert character, and have occasionally been regarded as actual parts of Arabia.[7]

The chief natural division of the country is that made by the Tigris, which, having a course nearly from north to south, between Til and Samarah, separates Assyria into a western and

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[7] Xenophon, *Anab.* i. 5, § 1; Plin. *H. N.* v. 24; Strab. xvi. 1, § 26.

an eastern district. Of these two, the eastern or that upon the left bank of the Tigris, although considerably the smaller, has always been the more important region. Comparatively narrow at first, it broadens as the course of the river is descended, till it attains about the thirty-fifth parallel a width of 130 or 140 miles. It consists chiefly of a series of rich and productive plains, lying along the courses of the various tributaries which flow from Mount Zagros into the Tigris, and often of a semi-alluvial character. These plains are not, however, continuous. Detached ranges of hills, with a general direction parallel to the Zagros chain, intersect the flat rich country, separating the plains from one another, and supplying small streams [8] and brooks in addition to the various rivers, which, rising within or beyond the great mountain barrier, traverse the plains on their way to the Tigris. The hills themselves—known now as the Jebel Maklub, the Ain-es-sufra, the Karachok, &c.—are for the most part bare and sterile. In form they are hogbacked, and viewed from a distance have a smooth and even outline; but on a nearer approach they are found to be rocky and rugged. Their limestone sides are furrowed by innumerable ravines, and have a dry and parched appearance, being even in spring generally naked and without vegetation. The sterility is most marked on the western flank, which faces the hot rays of the afternoon sun; the eastern slope is occasionally robed with a scanty covering of dwarf oak or stunted brushwood.[9] In the fat soil of the plains the rivers commonly run deep and concealed from view,[1] unless in the spring and the early summer, when through the rains and the melting of the snows in the mountains they are greatly swollen, and run bank full, or even overflow the level country.

The most important of these rivers are the following:—the

[8] The most important of these is the Khosr, or river of Koyunjik, which, rising from the Ain Sifni hills beyond the Jebel Maklub, forces its way through that range, and after washing Khorsabad, and crossing the great plain, winds round the eastern base of the mound at Koyunjik, and then runs on to the Tigris. It is a narrow and sluggish stream, but deep, and only fordable about Koyunjik in a few places. (See Layard's *Nineveh and Babylon*, p. 77; and compare the view of the ruins of Nineveh, infra, p. 255.)

[9] Layard, p. 222. [1] Ibid. p. 223.

Kurnib or Eastern Khabour, which joins the Tigris in lat. 37° 12′; the Greater Zab (Zab Ala), which washes the ruins of Nimrud, and enters the main stream almost exactly in lat. 36°; the Lesser Zab (Zab Asfal), which effects its junction about lat. 35° 15′; the Adhem, which is received a little below Samarah, about lat. 34°; and the Diyaleh, which now joins below Baghdad, but from which branches have sometimes entered the Tigris a very little below the mouth of the Adhem. Of these streams the most northern, the Khabour, runs chiefly in an untraversed country—the district between Julamerik and the Tigris. It rises a little west of Julamerik in one of the highest mountain districts of Kurdistan, and runs with a general south-westerly course to its junction with another large branch, which reaches it from the district immediately west of Amadiyeh; it then flows due west, or a little north of west, to Zakko, and, bending to the north after passing that place, flows once more in a south-westerly direction until it reaches the Tigris. The direct distance from its source to its embouchure is about 80 miles; but that distance is more than doubled by its windings. It is a stream of considerable size, broad and rapid, at many seasons not fordable at all and always forded with difficulty.[2]

The Greater Zab is the most important of all the tributaries of the Tigris. It rises near Konia, in the district of Karasu, about lat. 38° 20,′ long. 44° 30′, a little west of the watershed which divides the basins of Lakes Van and Urumiyeh. Its general course for the first 150 miles is S.S.W., after which for 25 or 30 miles it runs almost due south through the country of the Tiyari. Near Amadiyeh it makes a sudden turn, and flows S.E. or S.S.E. to its junction with the Rowandiz branch;[3] whence, finally, it resumes its old direction, and runs south-west past the Nimrud ruins into the Tigris. Its entire course, exclusive of small windings, is above 350 miles, and of these nearly 100 are across the plain country, which it enters soon

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[2] Mr. Layard forded the Khabour on his way to Mosul in 1849. The water was above the horses' bellies. (*Nineveh and Babylon*, p. 56.)

[3] Ainsworth, in the *Journal of the Geographical Society*, vol. xi. p. 70. Compare Mr. Layard's large map at the end of his *Nineveh and Babylon*.

after receiving the Rowandiz stream. Like the Khabour, it is fordable at certain places and during the summer season; but even then the water reaches above the bellies of horses.[4] It is 20 yards wide a little above its junction with the main stream.[5] On account of its strength and rapidity the Arabs sometimes call it the "Mad River."[6]

The Lesser Zab has its principal source near Legwin,[7] about twenty miles south of Lake Urumiyeh, in lat. 36° 40′, long. 46° 25′. This source is to the east of the great Zagros chain; and it might have been supposed that the waters would necessarily flow northward or eastward, towards Lake Urumiyeh, or towards the Caspian. But the Legwin river, called even at its source the Zei or Zab, flows from the first westward, as if determined to pierce the mountain barrier. Failing, however, to find an opening where it meets the range, the Little Zab turns south and even south-east along its base, till about 25 or 30 miles from its source it suddenly resumes its original direction, enters the mountains in lat. 36° 20′, and forces its way through the numerous parallel ranges, flowing generally to the S.S.W., till it debouches upon the plain near Arbela, after which it runs S.W. and S.W. by S. to the Tigris. Its course among the mountains is from 80 to 90 miles, exclusive of small windings; and it runs more than 100 miles through the plain. Its ordinary width, just above its confluence with the Tigris, is 25 feet.[8]

The Diyaleh, which lies mostly within the limits that have been here assigned to Assyria, is formed by the confluence of two principal streams, known respectively as the Holwan, and the Shirwan, river. Of these, the Shirwan seems to be the main branch. This stream rises from the most eastern and highest of the Zagros ranges, in lat. 34° 45′, long. 47° 40′ nearly. It flows at first west, and then north-west, parallel to the chain, but on entering the plain of Shahrizur, where tributaries join it from the north-east and the north-west, the Shirwan changes its

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[4] Layard, p. 169.

[5] Chesney, *Euphrates Expedition*, vol. i. p. 24.

[6] Ibid. p. 22, note [3].

[7] See the account of its source given by Sir H. Rawlinson, who was the first European to explore this region, in the *Journal of the Geographical Society*, vol. x. p. 31.

[8] Chesney, vol. i. p. 25.

course and begins to run south of west, a direction which it pursues till it enters the low country, about lat. 35° 5′, near Semiram. Thence to the Tigris it has a course which in direct distance is 150 miles, and 200 if we include only main windings.[9] The whole course cannot be less than 380 miles, which is about the length of the Great Zab river. The width attained, before the confluence with the Tigris, is 60 yards,[1] or three times the width of the Greater, and seven times that of the Lesser Zab.

On the opposite side of the Tigris, the traveller comes upon a region far less favoured by nature than that of which we have been lately speaking. Western Assyria has but a scanty supply of water; and unless the labour of man is skilfully applied to compensate this natural deficiency, the greater part of the region tends to be, for ten months out of the twelve, a desert. The general character of the country is level, but not alluvial. A line of mountains, rocky and precipitous, but of no great elevation, stretches across the northern part of the region, running nearly due east and west, and extending from the Euphrates at Rum-kaleh to Til and Chelek upon the Tigris. Below this, a vast slightly undulating plain extends from the northern mountains to the Babylonian alluvium, only interrupted about midway by a range of low limestone hills called the Sinjar, which leaving the Tigris near Mosul runs nearly from east to west across central Mesopotamia, and strikes the Euphrates half-way between Rakkeh and Kerkesiyeh, nearly in long. 40°.

The northern mountain region, called by Strabo "Mons Masius," and by the Arabs the Karajah Dagh towards the west, and towards the east the Jebel Tur, is on the whole a tolerably fertile country.[2] It contains a good deal of rocky land; but

[9] See the map attached to Sir H. Rawlinson's Memoir on the Atropatenian Ecbatana, in the *Journal of the Geographical Society*, vol. x.

[1] Chesney, *Euphrates Expedition*, vol. i. p. 35.

[2] This region has been traversed by few, and described by fewer, Europeans. The best published account which I have been able to find is that of the elder Niebuhr. (See his *Voyage en Arabie*, pp. 300–334.) Some careful MS. notes have been kindly placed at my disposal by Mr. A. D. Berrington, who has traversed it. On the general fertility of the region, compare Niebuhr's *Description de l'Arabie*, pp. 134, 135. Strabo's words are well weighed, and just meet the case—Ἔστι δ' ἡ μὲν παρόρειος εὐδαίμων ἱκανῶς. xvi. i. § 23.

has abundant springs, and in many parts is well wooded. Towards the west it is rather hilly than mountainous;[3] but towards the east it rises considerably, and the cone above Mardin is both lofty and striking.[4] The waters flowing from the range consist, on the north, of a small number of brooks, which after a short course fall into the Tigris; on the south, of more numerous and more copious streams, which gradually unite, and eventually form two rather important rivers. These rivers are

The Khabour, from near Arban, looking north (after Layard).

the Belik, known anciently as the Bilêcha,[5] and the Western Khabour, called Habor in Scripture, and by the classical writers Aborrhas or Chaboras.[6]

The Belik rises among the hills east of Orfa, about long. 39°, lat. 37° 10′. Its course is at first somewhat east of south; but

[3] Niebuhr, *Voyage en Arabie*, pp. 328–334; Pocock, *Description of the East*, vol. ii. pp. 158–163; Chesney, *Euphrates Expedition*, vol. i. p. 107.

[4] Niebuhr, p. 317; Layard, *Nineveh and Babylon*, p. 51.

[5] Isid. Char. p. 3.

[6] Aborrhas by Strabo (xvi. i. § 27) and Procopius (*Bell. Pers.* ii. 5); Chaboras (Χαβώρας) by Pliny (xxx. 3), and Ptolemy (v. 18). Other forms of the word are Aburas (Ἀβούρας, Isid. Char. p. 5), and Abora (Ἀβώρα, Zosim. iii. 12).

it soon sweeps round, and, passing by the city of Harran—the Haran of Scripture and the classical Carrhæ[7]—proceeds nearly due south to its junction, a few miles below Rakkah, with the Euphrates. It is a small stream throughout its whole course,[8] which may be reckoned at 100 or 120 miles.

The Khabour is a much more considerable river. It collects the waters which flow southward from at least two-thirds of the Mons Masius,[9] and has, besides, an important source, which the Arabs regard as the true "head of the spring,"[1] derived apparently from a spur of the Sinjar range. This stream, which rises about lat. 36° 40′, long. 40°, flows a little south of east to its junction near Koukab with the Jerujer or river of Nisibis, which comes down from Mons Masius with a course not much west of south. Both of these branches are formed by the union of a number of streams. Neither of them is fordable for some distance above their junction; and below it, they constitute a river of such magnitude as to be navigable for a considerable distance by steamers.[2] The course of the Khabour below Koukab is tortuous;[3] but its general direction is S.S.W. The entire length of the stream is certainly not less than 200 miles.

The country between the "Mons Masius" and the Sinjar range is an undulating plain, from 60 to 70 miles in width, almost as devoid of geographical features as the alluvium of Babylonia. From a height the whole appears to be a dead level:[4] but the traveller finds, on descending, that the surface, like that of the American prairies and the Roman Campagna, really rises and falls in a manner which offers a decided contrast to the alluvial flats nearer the sea. Great portions of the tract are very deficient in water. Only small streams descend from the Sinjar range, and these are soon absorbed by the thirsty soil; so that except in the immediate vicinity of the hills north and south, and along the courses of the Khabour, the Belik, and their affluents, there is little natural fertility,

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[7] Plin. *H. N.* v. 24; Dio Cass. xxxvii. 5; Strab. xvi. 1, § 23, &c.

[8] Chesney, *Euphrates Expedition*, vol. i. p. 48.

[9] Ainsworth, *Travels in the Track of the Ten Thousand*, p. 79, note [1].

[1] *Ras el Ain.* (Niebuhr, p. 316; Layard, p. 308; Ainsworth, p. 75.)

[2] Ainsworth, l. s. c.

[3] Layard, p. 304.

[4] Ibid. p. 51.

and cultivation is difficult. The soil too is often gypsiferous; and its salt and nitrous exudations destroy vegetation;[5] while at the same time the streams and springs are from the same cause for the most part brackish and unpalatable.[6] Volcanic action probably did not cease in the region very much, if at all, before the historical period. Fragments of basalt in many places strew the plain; and near the confluence of the two chief branches of the Khabour, not only are old craters of volcanoes distinctly visible, but a cone still rises from the centre

Koukab (after Layard).

of one, precisely like the cones in the craters of Etna and Vesuvius, composed entirely of loose lava, scoriæ, and ashes, and rising to the height of 300 feet. The name of this remarkable hill, which is Koukab, is even thought to imply, that the volcano may have been active within the time to which the traditions of the country extend.[7]

Sheets of water are so rare in this region that the small lake of Khatouniyeh seems to deserve especial description. This

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[5] Layard, p. 324. [6] Ibid. pp. 242, 325.
[7] Ibid. p. 308. *Koukab* is said to signify "a jet of fire or flame."

lake is situated near the point where the Sinjar changes its character, and from a high rocky range subsides into low broken hills. It is of oblong shape, with its greater axis point-

Lake of Khatouniyeh (after Layard).

ing nearly due east and west, in length about four miles, and in its greatest breadth somewhat less than three.[8] The banks

[8] See Mr. Layard's maps at the end of his *Nineveh and Babylon*. For a general description of the lake, compare the same work, p. 324. with C. Niebuhr's *Voyage en Arabie*, p. 316.

are low and in part marshy, more especially on the side towards the Khabour, which is not more than ten miles distant.[9] In the middle of the lake is a hilly peninsula, joined to the mainland by a narrow causeway, and beyond it a small island covered with trees. The lake abounds with fish and waterfowl; and its water, though brackish, is regarded as remarkably wholesome both for man and beast.

The Sinjar range, which divides Western Assyria into two plains, a northern and a southern, is a solitary limestone ridge, rising up abruptly from the flat country, which it commands to a vast distance on both sides. The limestone, of which it is composed, is white, soft, and fossiliferous; it detaches itself in enormous flakes from the mountain-sides, which are sometimes broken into a succession of gigantic steps, while occasionally they present the columnar appearance of basalt.[1] The flanks of the Sinjar are seamed with innumerable ravines, and from these small brooks issue, which are soon dispersed by irrigation, or absorbed in the thirsty plains.[2] The sides of the mountain are capable of being cultivated by means of terraces, and produce fair crops of corn and excellent fruit; the top is often wooded with fruit-trees or forest-trees.[3] Geographically, the Sinjar may be regarded as the continuation of that range of hills which shuts in the Tigris on the west, from Tekrit nearly to Mosul, and then leaving the river strikes across the plain in a direction almost from east to west as far as the town of Sinjar. Here the mountains change their course and bend to the south-west, till having passed the little lake described above, they somewhat suddenly subside,[4] sinking from a high ridge into low undulating hills, which pass to the south of the lake, and then disappear in the plain altogether. According to some, the Sinjar here terminates; but perhaps it is best to regard it as rising

[9] A long swamp, called the Hol, extends from the lake to within a short distance of the Khabour (Layard, l. s. c.). This is probably the Holi, or Hauli of some writers, which is represented as a tributary of the Khabour. (See Chesney, *Euphrates Expedition*, vol. i. p. 51; *Journal of Geographical Society*, vol. ix. p. 423, &c.)

[1] Layard, *Nineveh and Babylon*, p. 250.

[2] Ibid. p. 256. Compare *Nineveh and its Remains*, vol. i. p. 315, note.

[3] Layard, *Nineveh and Babylon*, pp. 253–256.

[4] Ibid. p. 265.

again in the Abd-el-aziz hills,[5] which, intervening between the Khabour and the Euphrates, run on in the same south-west direction from Arban to Zelabi. If this be accepted as the true course of the Sinjar, we must view it as throwing out two important spurs. One of these is near its eastern extremity, and runs to the south-east, dividing the plain of Zerga from the great central level. Like the main chain, it is of limestone; and, though low, has several remarkable peaks which serve as landmarks from a vast distance. The Arabs call it Kebritiyeh, or "the Sulphur range," from a sulphurous spring which rises at its foot.[6] The other spur is thrown out near the western extremity, and runs towards the north-west, parallel to the course of the upper Khabour, which rises from its flank at Ras-el-Ain.[7] The name of Abd-el-aziz is applied to this spur, as well as to the continuation of the Sinjar between Arban and Halebi. It is broken into innumerable valleys and ravines,[8] abounding with wild animals, and is scantily wooded with dwarf oak. Streams of water abound in it.

South of the Sinjar range, the country resumes the same level appearance which characterises it between the Sinjar and the Mons Masius. A low limestone ridge skirts the Tigris valley from Mosul to Tekrit,[9] and near the Euphrates the country is sometimes slightly hilly;[1] but generally the eye travels over a vast slightly undulating level, unbroken by eminences, and supporting but a scanty vegetation. The description of Xenophon a little exaggerates the flatness, but is otherwise faithful enough:—"In these parts the country was a plain throughout, as smooth as the sea, and full of wormwood; if any other shrub or reed grew there, it had a sweet aromatic smell; but there was not a tree in the whole region."[2] Water is still more

[5] This is the view of Colonel Chesney. (See his *Euphrates Expedition*, vol. i. p. 105.)

[6] Layard, *Nineveh and Babylon*, p. 242, note, and p. 249.

[7] Chesney, *Euphrates Expedition*, p. 49.

[8] Layard, *Nineveh and Babylon*, p. 312.

[9] Ibid. pp. 240, 241.

[1] Chesney, *Euphrates Expedition*, pp. 52, 53. The hills in this region are of chalk formation, as is the Abd-el-aziz, according to the same author. (Ibid. p. 105.)

[2] Xen. *Anab.* i. 5, § 1. Ἐν τούτῳ δὲ τῷ τόπῳ ἦν μὲν ἡ γῆ πεδίον, ἅπαν ὁμαλὸν ὥσπερ θάλαττα, ἀψινθίου δὲ πλῆρες· εἰ δέ τι καὶ ἄλλο ἐνῆν ὕλης ἢ καλάμου, ἅπαντα ἦσαν εὐώδη, ὥσπερ ἀρώματα· δένδρον δ' οὐδὲν ἐνῆν.

scarce than in the plains north of the Sinjar. The brooks descending from that range are so weak that they generally lose themselves in the plain before they have run many miles. In one case only do they seem sufficiently strong to form a river. The Tharthar, which flows by the ruins of El Hadhr, is at that place a considerable stream, not indeed very wide, but so deep that horses have to swim across it.[3] Its course above El Hadhr has not been traced; but the most probable conjecture seems to be that it is a continuation of the Sinjar river, which rises about the middle of the range, in long. 41° 50′, and flows south-east through the desert. The Tharthar appears at one time to have reached the Tigris near Tekrit,[4] but it now ends in a marsh or lake to the south-west of that city.[5]

The political geography of Assyria need not occupy much of our attention. There is no native evidence that in the time of the great monarchy the country was formally divided into districts, to which any particular names were attached, or which were regarded as politically separate from one another; nor do such divisions appear in the classical writers until the time of the later geographers, Strabo, Dionysius, and Ptolemy. If it were not that mention is made in the Old Testament of certain districts within the region which has been here termed Assyria, we should have no proof that in the early times any divisions at all had been recognised. The names, however, of Padan-Aram, Aram-Naharaim, Gozan, Halah, and (perhaps) Huzzab, designate in Scripture particular portions of the Assyrian territory; and as these portions appear to correspond in some degree with the divisions of the classical geographers, we are led to suspect that these writers may in many, if not in most, cases have followed ancient and native traditions or authorities. The principal divisions of the classical geographers will therefore be noticed briefly, so far at least as they are intelligible.

According to Strabo,[6] the district within which Nineveh stood

[3] *Journal of Geographical Society*, vol. ix. p. 455.
[4] Chesney, p. 50.
[5] Ibid. p. 51; Layard, *Nineveh and its Remains*, vol. i. p. 315, note.
[6] Strab. xvi. 1, § 1.

was called Aturia, which seems to be the word Assyria slightly corrupted, as we know that it habitually was by the Persians.[7] The neighbouring plain country he divides into four regions—Dolomené, Calachené, Chazené, and Adiabené. Of Dolomené, which Strabo mentions but in one place, and which is wholly omitted by other authors, no account can be given.[8] Calachené, which is perhaps the Calaciné of Ptolemy,[9] must be the tract about Calah (Nimrud), or the country immediately north of the Upper Zab river. Chazené, like Dolomené, is a term which cannot be explained.[1] Adiabené, on the contrary, is a well-known geographical expression.[2] It is the country of the Zab or *Diab* rivers,[3] and either includes the whole of Eastern Assyria between the mountains and the Tigris,[4] or more strictly is applied to the region between the Upper and Lower Zab,[5] which consists of two large plains separated from each other by the Karachok hills. In this way Arbelitis, the plain between the Karachok and Zagros, would fall within Adiabené; but it is sometimes made a distinct region,[6] in which case Adiabené must be restricted to the flat between the two Zabs, the Tigris,

[7] The form Aturia (Ἀτουρία) is used likewise by Arrian (*Exp. Al.* iii. 7), and by Stephen (ad voc. Νῖνος). Dio Cassius writes Atyria (Ἀτυρία), and asserts that the τ was always used for the *s* "by the barbarians" (lv. 28). It was certainly so used by the Persians (see the *Behistun Inscription*, passim); but the Assyrians themselves, like the Jews and the Greeks, seem to have employed the *s*.

[8] Dolomené is ingeniously connected by Mons. C. Müller with the Dolba of Arrian. (Fr. 11. See the *Fragment. Hist. Gr.* vol. iii. p. 588.) It is clear that the ethnic Δολβηνὴ (Steph. Byz. ad voc.) would easily pass into Δολομηνή. Dolba, according to Arrian, was a city in Adiabené.

[9] Ptol. vi. 1. As Ptolemy, however, places Calaciné *above* Adiabené, he may possibly intend it for Chalonitis.

[1] Chazené was indeed mentioned by Arrian in his *Parthica;* and if we possessed that work, we should probably not find much difficulty in locating it. But the fragment in Stephen (ad voc. Χαζηνή) tells us nothing of its exact position. Stephen himself is clearly wrong in placing it on the *Euphrates*. Arrian probably included it in the territory of Dolba, which was with him a part of Adiabené. (See above, note [8], and compare the fragment of Arrian: Ἐν ταύτῃ τῇ Ὀλβίᾳ (leg. Δολβίᾳ vel Δολβαίᾳ) καὶ τὰ πεδία τῆς Χαζηνῆς σατραπείας ἐπὶ μήκιστον ἀποτεταμένα.)

[2] See Strab. xvi. 1, § 1 and § 19; Plin. *H. N.* v. 12, vi. 13; Ptol. vi. 1; Arrian, Fr. 11–13; Pomp. Mel. i. 11; Solin. 48; Amm. Marc. xxiii. 20, &c.

[3] So Ammianus explains the name—"Nos autem id dicimus, quod in his terris amnes sunt duo perpetui, quos et transivimus, Diabas et Adiabas, juncti navalibus pontibus; ideoque intelligi Adiabenam cognominatam, ut a fluminibus maximis Ægyptus, et India, itidemque Hiberia et Bætica." (xxiii. 6.)

[4] Pliny seems to give to Adiabené this extended signification, when he says,—"Adiabenen Tigris et montium sinus cingunt. At lævâ ejus regio Medorum est." (*H. N.* vi. 9; compare ch. vi. 26.)

[5] Amm. Marc. l. s. c.

[6] As by Ptolemy (*Geograph.* vi. 1).

and the Karachok. Chalonitis and Apolloniatis, which Strabo seems to place between these northern plains and Susiana,[7] must be regarded as dividing between them the country south of the Lesser Zab, Apolloniatis (so called from its Greek capital, Apollonia) lying along the Tigris, and Chalonitis along the mountains from the pass of Derbend to Gilan.[8] Chalonitis seems to have taken its name from a capital city called Chala,[9] which lay on the great route connecting Babylon with the southern Ecbatana, and in later times was known as Holwan.[1] Below Apolloniatis,[2] and (like that district) skirting the Tigris, was Sittacené (so named from its capital, Sittacé[3]), which is commonly reckoned to Assyria,[4] but seems more properly regarded as Susianian territory. Such are the chief divisions of Assyria east of the Tigris.

West of the Tigris, the name Mesopotamia is commonly used, like the Aram-Naharaim of the Hebrews, for the whole country between the two great rivers. Here are again several districts, of which little is known, as Acabené, Tingené, and Ancobaritis.[5] Towards the north, along the flanks of Mons Masius from Nisibis to the Euphrates, Strabo seems to place the Mygdonians, and to regard the country as Mygdonia.[6] Below Mygdonia, towards the west, he puts Anthemusia, which he extends as far as the Khabour river.[7] The region south of

[7] Strab. xv. 3, § 12; xvi. 1, § 1.

[8] The position of Chalonitis is pretty exactly indicated by Strabo, Polybius, and Isidore of Charax. Strabo calls it τὴν περὶ τὸ Ζάγρον ὄρος Χαλωνῖτιν (xvi. 1, § 4). Polybius connects it with the same mountain range (v. 54, § 7). Isidore distinctly places it between Apolloniatis and Media (*Mans. Parth.* p. 5). See also Dionys. Perieg. i. 1015, and Plin. *H. N.* vi. 27.

[9] Isid. *Mans. Parth.* l. s. c. Tacitus probably intends the same city by his "Halus" (*Ann.* vi. 41), which he couples with Artemita. It does not appear to have been identical either with the Halah of the Book of Kings, or with the Calah of Genesis.

[1] The ruins of Holwan were visited by Sir H. Rawlinson in the year 1836. For an account of them, and for a notice of the importance of Holwan in Mahometan times, see the *Journal of the Geographical Soc.* vol. ix. pp. 35–40.

[2] Strabo identifies Sittacené with Apolloniatis (xv. 3, § 12); but from Ptolemy (vi. 1) and other geographers we gather that Sittacené was further down the river.

[3] Sittacé was first noticed by Hecatæus (Fr. 184). It was visited by Xenophon (*Anab.* ii. 4, § 13). Strabo omits all mention of it. We have notices of it in Pliny (*H. N.* vi. 27), and Stephen (ad voc. Ψιττακή).

[4] Strab. xvi. 1, § 1, et passim; Ptol. vi. 1.

[5] Ptol. v. 18.

[6] Strab. xvi. 1, § 1, and § 23.

[7] Ibid. § 27. Anthemusia derived its name from a city Anthemus (Steph. Byz.), or Anthemusias (Tacit. Isid.), built by the Macedonians between the Euphrates and the Belik.

the Khabour and the Sinjar he seems to regard as inhabited entirely by Arabs.[8] Ptolemy has, in lieu of the Mygdonia of Strabo, a district which he calls Gauzanitis;[9] and this name is on good grounds identified with the Gozan of Scripture[1]—the true original probably of the "Mygdonia" of the Greeks.[2] Gozan appears to represent the whole of the upper country from which the longer affluents of the Khabour spring; while Halah, which is coupled with it in Scripture,[3] and which Ptolemy calls Chalcitis, and makes border on Gauzanitis, may designate the tract upon the main stream, as it comes down from Ras-el-Ain.[4] The region about the upper sources of the Belik has no special designation in Strabo, but in Scripture it seems to be called Padan-Aram,[5] a name which has been explained as "the flat Syria," or "the country stretching out from the foot of the hills."[6] In the later Roman times it was known as Osrhoëné;[7] but this name was scarcely in use before the time of the Antonines.

The true heart of Assyria was the country close along the Tigris, from lat. 35° to 36° 30′. Within these limits were the four great cities, marked by the mounds at Khorsabad, Mosul, Nimrud, and Kileh-Sherghat, besides a multitude of places of inferior consequence. It has been generally supposed that the left bank of the river was more properly Assyria than the right;[8] and the idea is so far correct, as that the left bank was

[8] Strab. xvi. 1, § 26. Compare Plin. *H. N.* v. 24.

[9] Ptol. v. 18.

[1] 2 Kings xvii. 6; xviii. 11; xix. 12; 1 Chron. v. 26; Is. xxxvii. 12. The identification does not depend upon the mere resemblance of name: but upon that, combined with the mention of the Habor (or Khabour) as the river of Gozan, and the implied vicinity of Gozan to Haran (Harran) and Halah (Chalcitis).

[2] See the article on "Gozan" in Smith's *Biblical Dictionary*, vol. i. p. 726. The initial *m* (מ) in the word Mygdonia is probably a mere adjectival or participial prefix; while the *d* represents the Semitic *z* (ז), according to an ordinary phonetic variation.

[3] 2 Kings xvii. 6; xviii. 11; 1 Chron. v. 26.

[4] One of the mounds on this stream is still called Gla. or Kalah, by the Arabs. (See Layard's *Nineveh and Babylon*. p. 312, note.)

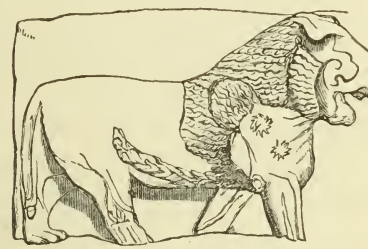
[5] Gen. xxv. 20; xxviii. 2–7, &c. The name is only used in Genesis.

[6] Stanley, *Sinai and Palestine*. p. 128, note [1]. It is curious, however, that both *Padan*-Aram and Aram-*Naharaim* recall the names of nations inhabiting these parts in the Assyrian times. The chief inhabitants of the Mons Masius mentioned by the early Assyrian kings are the *Nairi*; and across the Euphrates, towards Aleppo, there is a tribe called the *Patena*. Probably, however, both coincidences are accidental.

[7] Dio Cass. xl. 19; lxviii. 18, &c. Arrian. Fr. 2; Herodian, iii. 9, &c.

[8] Ptolemy bounds Assyria by the Tigris (*Geograph.* vi. 1). Pliny identi-

in truth of primary value and importance,[9] whence it naturally happened that three out of the four capitals were built on that side of the stream. Still the very fact that one early capital was on the right bank is enough to show that both shores of the stream were alike occupied by the race from the first; and this conclusion is abundantly confirmed by other indications throughout the region. Assyrian ruins, the remains of considerable towns, strew the whole country between the Tigris and Khabour, both north and south of the Sinjar range.[1] On the banks of the Lower Khabour are the remains of a royal palace,[2] besides many other traces of the tract through which it runs having been permanently occupied by the Assyrian people.[3] Mounds, probably Assyrian, are known to exist along the course of the Khabour's great western affluent;[4] and even near Seruj, in the country between Harran and the Euphrates some evidence has been found not only of conquest but of occupation.[5] Remains are perhaps more frequent on the opposite side of the Tigris; at any rate they are more striking and more important. Bavian, Khorsabad, Shereef-Khan, Nebbi-Yunus, Koyunjik, and Nimrud, which have furnished by far the most valuable and interesting of the Assyrian monuments, all lie east of the Tigris; while on the west two places



Colossal lion, near Seruj.

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fies Adiabené with Assyria (*H. N.* v. 12). If the Huzzab of Nahum is really "the Zab region" (Smith's *Biblical Dictionary*, sub voc.), that prophet would make the same identification. When Strabo (xvi. 1, § 1) and Arrian (*Exp. Alex.* iii. 7) place Aturia on the left bank of the Tigris only, they indicate a similar feeling.

[9] See above, pp. 182, 183.

[1] They are less numerous north of the Sinjar. (See Layard, *Nineveh and Babylon*, p. 252.) Still there are a certain number of ancient mounds in the more northern plain. (Ibid. pp. 334, 335; and comparè *Nineveh and its Remains*, vol. i. p. 311.)

[2] At Arban. (*Nineveh and Babylon*, pp. 275, 276.)

[3] Ibid. pp. 297–300.

[4] Ibid. p. 312, and note.

[5] The colossal lions at this place, 12 feet long and 7 feet 3 inches high, are unmistakably Assyrian, and must have belonged to some large building. (See Chesney, *Euphrates Expedition*, vol. i. pp. 114, 115, whence the above representation is taken.)

only have yielded relics worthy to be compared with these, Arban and Kileh-Sherghat.

It is curious that in Assyria, as in early Chaldæa, there is a special pre-eminence of *four* cities. An indication of this might seem to be contained in Genesis, where Asshur is said to have "builded Nineveh, and the city Rehoboth, and Calah, and Resen;"[6] but on the whole it is more probable that we have here a mistranslation (which is corrected for us in the margin[7]), and that three cities only are ascribed by Moses to the great patriarch. In the flourishing period of the empire, however, we actually find four capitals, of which the native names seem to have been Ninua, Calah, Asshur, and Bit-Sargina, or Dur-Sargina (the city of Sargon)—all places of first-rate consequence. Besides these principal cities, which were the sole seats of government, Assyria contained a vast number of large towns, few of which it is possible to name, but so numerous that they cover the whole face of the country with their ruins.[8] Among them were Tarbisa, Arbil, Arapkha, and Khazeh, in the tract between the Tigris and Mount Zagros; Haran, Tel-Apni, Razappa (Rezeph), and Amida, towards the north-west frontier; Nazibina (Nisibis), on the eastern branch of the Khabour; Sirki (Circesium), at the confluence of the Khabour with the Euphrates; Anat on the Euphrates, some way below this junction; Tabiti, Magarisi, Sidikan, Katni, Beth-Khalupi, &c., in the district south of the Sinjar, between the lower course of the Khabour and the Tigris. Here, again, as in the case of Chaldæa,[9] it is impossible at present to locate with accuracy all the cities. We must once more confine ourselves to the most important, and seek to determine, either absolutely or with a certain vagueness, their several positions.

It admits of no reasonable doubt that the ruins opposite Mosul are those of Nineveh. The name of Nineveh is read on

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[6] Gen. x. 11, 12.

[7] In the margin we have רְחֹבֹת עִיר "streets of the city," translated "the streets of the city," which is far better than the textual rendering. Had *r'hoboth* been the name of a place, the term *'ir* would scarcely have been added.

[8] Layard, *Nineveh and its Remains*, vol i. p. 314; *Nineveh and Babylon*, pp. 245, 246, 312, 313, &c.; *Journal of Asiatic Society*, vol. xv. pp. 303, 304.

[9] See above, p. 15.

the bricks; and a uniform tradition, reaching from the Arab conquest to comparatively recent times,[1] attaches to the mounds themselves the same title. They are the most extensive ruins in Assyria; and their geographical position suits perfectly all the notices of the geographers and historians with respect to the great Assyrian capital.[2] As a subsequent chapter will be devoted to a description of this famous city,[3] it is enough in this place to observe that it was situated on the left or east bank of the Tigris, in lat. 36° 21′, at the point where a considerable brook, the Khosr-su, falls into the main stream. On its west flank flowed the broad and rapid Tigris, the "arrow-stream," as we may translate the word;[4] while north, east, and south, expanded the vast undulating plain which intervenes between the river and the Zagros mountain-range. Midway in this plain, at the distance of from fifteen to eighteen miles from the city, stood boldly up the Jabel Maklub and Ain-sufra hills, calcareous ridges rising nearly 2000 feet[5] above the level of the Tigris, and forming by far the most prominent objects in the natural landscape.[6] Inside the Ain Sufra, and parallel to it, ran the small stream of the Gomel, or Ghazir, like a ditch skirting a wall, an additional defence in that quarter. On the south-east and south, distant about fifteen miles, was the strong and impetuous current of the Upper Zab, completing the natural defences of the position, which was excellently chosen to be the site of a great capital.

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[1] The early Arabian geographers and historians mentioned the forts of *Ninawi* to the east and of Mosul to the west of the Tigris. (*As. Soc. Journ.* vol. xii. p. 418, note [4].) To prove the continuity of the tradition, it would be necessary to quote all travellers, from Benjamin of Tudela to Mr. Layard, who disputes its value, but does not deny it.

[2] See Herod. i. 193; Strab. xvi. 1, § 3; Ptol. vi. 1; Plin. vi. 13, § 16; Amm. Marc. xviii. 7; Eustath. ad Dionys. Perieg. 991.

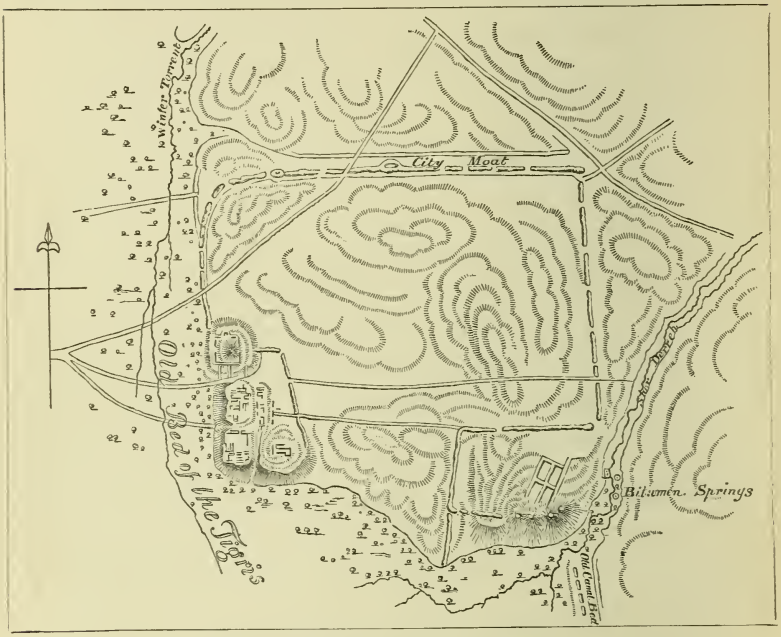
[3] See below, ch. iv.

[4] So Strabo, xi. 14, § 8; Plin. *H. N.* vi. 27; Q. Curt. iv. 9, § 16, &c. There are, however, some difficulties attaching to this etymology. It is Arian, not Semitic—*tigra*, as "an arrow," standing connected with the Sanscrit *tij*, "to sharpen," Armenian *teg*, "a javelin," Persian *tigh*, "a blade," and *tir*, "an arrow." Yet it was used by the Jews, under the slightly corrupted form of *Dekel*, (דִּקֶל), as early as Moses (Gen. ii. 14), and by the Assyrians about B.C. 1000. (*Journal of As. Soc.* vol. xiv. p. xcv.) It is conjectured that there was a root *dik* in ancient Babylonian, of cognate origin with the Sanscrit *tij*, from which the forms *Dekel*, *Digla*, or *Diglath* were derived.

[5] Capt. Jones, in the *Journal of the As. Soc.* vol. xv. p. 299.

[6] Ibid. p. 298.

South of Nineveh, at the distance of about twenty miles by the direct route and thirty by the course of the Tigris,[7] stood the second city of the empire, Calah, the site of which is marked by the extensive ruins at Nimrud.[8] Broadly, this place may be said to have been built at the confluence of the Tigris with the Upper Zab; but in strictness it was on the Tigris only



Plan of the Ruins at Nimrud (Calah).

the Zab flowing five or six miles further to the south,[9] and entering the Tigris at least nine miles below the Nimrud ruins.[1]

[7] So Colonel Chesney (*Euphrates Expedition*, vol. i. p. 21).

[8] Sir H. Rawlinson and Dr. Hincks agree in reading the ancient name of this city as Calah. At the same time it is not to be denied that there are difficulties in the identification. 1. Nimrud being only 20 miles from Nineveh, it is difficult to find room for Resen, a "great city" (Gen. x. 12) between them, not to mention that there are no important ruins in this position. 2. Calah, moreover, if it gave name to Ptolemy's Calaciné, should be away from the river, for by placing Calaciné *above* Adiabené, he almost certainly meant further from the river.

[9] *Journal of As. Soc.* vol. xv. p. 342. At the same time it must be admitted that water from the Zab was conducted into the city by a canal and tunnel, of which more will be said in another chapter.

[1] Chesney, l. s. c.

These ruins at present occupy an area somewhat short of a thousand English acres,[2] which is little more than one-half of the area of the ruins of Nineveh; but it is thought that the place was in ancient times considerably larger, and that the united action of the Tigris and some winter streams has swept away no small portion of the ruins.[3] They form at present an irregular quadrangle, the sides of which face the four cardinal points. On the north and east the rampart may still be distinctly traced. It was flanked with towers along its whole course,[4] and pierced at uncertain intervals by gates, but was nowhere of very great strength or dimensions. On the south side it must have been especially weak, for there it has disappeared altogether. Here, however, it seems probable that the Tigris and the Shor Derreh stream, to which the present obliteration of the wall may be ascribed, formed in ancient times a sufficient protection. Towards the west, it seems to be certain that the Tigris (which is now a mile off) anciently flowed close to the city.[5] On this side, directly facing the river, and extending along it a distance of 600 yards,[6] or more than a third of a mile, was the royal quarter, or portion of the city occupied by the palaces of the kings. It consisted of a raised platform, forty feet above the level of the plain, composed in some parts of rubbish, in others of regular layers of sun-dried bricks, and cased on every side with solid stone masonry, containing an area of sixty English acres, and in shape almost a regular rectangle, 560 yards long, and from 350 to 450 broad.[7] The platform was protected at its edges by a parapet, and is thought to have been ascended in various places by wide staircases, or inclined ways, leading up from the plain.[8] The greater part of its area is occupied by the remains of palaces constructed by

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[2] Capt. Jones, in the *Journal of the Asiatic Soc.* vol. xv. pp. 347–351.

[3] Ibid. vol. xv. p. 347.

[4] Layard, *Nineveh and Babylon*, p. 656.

[5] Ibid. l. s. c.; *As. Soc. Journal*, vol. xv. pp. 342, 343.

[6] See Mr. Layard's "Plan" in his *Nineveh and Babylon*, opp. p. 655. For the present state of the ruins, see his *Nineveh and its Remains*, vol. i. opp. p. 331, and compare the chart (supra, p. 200), which is reduced from Captain F. Jones's *Survey*.

[7] The platform is not quite regular, being broader towards the south than towards the north, as will be seen in the plan.

[8] Layard, *Nineveh and Babylon*, p. 654.

various native kings, of which a more particular account will be given in the chapter on the architecture and other arts of the Assyrians.[9] It contains also the ruins of two small temples, and abuts at its north-western angle on the most singular structure which has as yet been discovered among the remains of the Assyrian cities. This is the famous tower or pyramid which looms so conspicuously over the Assyrian plains, and which has always attracted the special notice of the traveller.[1] An exact description of this remarkable edifice will be given hereafter.

Great Mound of Nimrud or Calah (after Layard).

It appears from the inscriptions on its bricks to have been commenced by one of the early kings, and completed by another. Its internal structure has led to the supposition that it was designed to be a place of burial for one or other of these monarchs. Another conjecture is, that it was a watch-tower;[2] but this seems very unlikely, since no trace of any mode by which it could be ascended has been discovered.

Forty miles below Calah, on the opposite bank of the Tigris,

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[9] See below, chap. vi.

[1] Xenophon describes Calah, which he calls Larissa (compare the Lachisa, לכישה, of the Samaritan Pentateuch), as "a vast deserted city, formerly inhabited by the Medes; it was," he says, "surrounded by a wall 25 feet broad, 100 feet high, and nearly seven miles in circumference, built of baked brick, with a stone basement to the height of 20 feet." He then observes: "Παρ' αὐτὴν τὴν πόλιν ἦν πυραμὶς λιθίνη, τὸ μὲν εὖρος πλέθρου, τὸ δὲ ὕψος δύο πλέθρων." (*Anab.* iii. 4, § 9.) Ctesias, with his usual exaggeration, made the width nine stades, and the height eight stades, or nearly a mile! He placed the pyramid at Nineveh, and on the Euphrates! (See Diod. Sic. ii. 7. § 1.) The imposing effect of the structure even now is witnessed to by Mr. Layard (*Nineveh and its Remains*, vol. i. p. 4); Colonel Rich (*Kurdistan*, vol. ii. p. 132); Colonel Chesney (*Euphrates Expedition*, vol. i. p. 21); and Captain Jones (*As. Soc. Journal*, vol. xv. pp. 348, 349).

[2] This is the opinion of Captain Jones (*As. Soc. Journal*, vol. xv. p. 349).

was a third great city, the native name of which appears to have been Asshur. This place is represented by the ruins at Kileh-Sherghat, which are scarcely inferior in extent to those at Nimrud or Calah.[3] It will not be necessary to describe minutely this site, as in general character it closely resembles the other ruins of Assyria. Long lines of low mounds mark the position of the old walls, and show that the shape of the city was quadrangular. The chief object is a large square mound or platform, two and a half miles in circumference, and in places a hundred feet above the level of the plain, composed in part of sun-dried bricks, in part of natural eminences, and exhibiting occasionally remains of a casing of hewn stone, which may once have encircled the whole structure. About midway on the north side of the platform, and close upon its edge, is a high cone or pyramid. The rest of the platform is covered with the remains of walls and with heaps of rubbish, but does not show much trace of important buildings. This city has been supposed to represent the Biblical Resen; but the description of that place as lying "*between* Nineveh and Calah" seems to render the identification worse than uncertain.

The ruins at Kileh-Sherghat are the last of any extent towards the south, possessing a decidedly Assyrian character. To complete our survey, therefore, of the chief Assyrian towns, we must return northwards, and, passing Nineveh, direct our attention to the magnificent ruins on the small stream of the Khosr-su, which have made the Arab village of Khorsabad one of the best known names in Oriental topography. About nine miles from the north-east angle of the wall of Nineveh, in a direction a very little east of north, stands the ruin known as Khorsabad, from a small village which formerly occupied its summit[4]—the scene of the labours of M. Botta, who was the first to disentomb from among the mounds of Mesopotamia the relics of an Assyrian palace. The enclosure at Khorsabad is nearly square in shape, each side being about 2000 yards long.[5] No part of

[3] See Layard, *Nineveh and its Remains*, vol. i. p. 5, and vol. ii. p. 44.

[4] M. Botta purchased and removed this village before he made his great excavations. (*Letters from Nineveh*, p. 57, note.)

[5] See Captain Jones's *Survey*, sheet I.

it is very lofty, but the walls are on every side well marked. Their angles point towards the cardinal points, or nearly so; and the walls themselves consequently face the north-east, the north-west, the south-west, and the south-east. Towards the middle of the north-west wall, and projecting considerably beyond it, was a raised platform of the usual character; and here stood the great palace, which is thought to have been open to the plain, and on that side quite undefended.[6]

Four miles only from Khorsabad, in a direction a little west of north, are the ruins of a smaller Assyrian city, whose native name appears to have been Tarbisa, situated not far from the modern village of Sherif-khan. Here was a palace, built by Esarhaddon for one of his sons, as well as several temples and other edifices. In the opposite direction, at the distance of about twenty miles, is Keremles, an Assyrian ruin, whose name cannot yet be rendered phonetically.[7] West of this site, and about half-way between the ruins of Nineveh and Nimrud or Calah, is Selamiyah, a village of some size, the walls of which are thought to be of Assyrian construction.[8] We may conjecture that this place was the Resen, or Dasé,[9] of Holy Scripture, which is said to have been a large city, interposed between Nineveh and Calah.[1] In the same latitude, but considerably further to the east, was the famous city of Arabil or Arbil,[2] known to the Greeks as Arbela, and to this day retaining its ancient appellation. These were the principal towns, whose positions can be fixed, belonging to Assyria Proper, or the tract in the immediate vicinity of Nineveh.

Besides these places, the inscriptions mention a large number of cities which we cannot definitely connect with any particular

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[6] Layard, *Nineveh and Babylon*, p. 657.

[7] The name is formed of two elements, the first meaning city, which would be *Dur* or *Beth*. The second element is the name of a god otherwise unknown to us; and this, being a mere monogram, cannot be represented phonetically.

[8] *Journal of Asiatic Society*, vol. xv. pp. 351 and 374.

[9] The LXX. interpreters have Δασή in the place of the Hebrew רֶסֶן. The Targums substitute the wholly different name of Tel-Assar (תל-אסר).

[1] Gen. x. 12.

[2] Arbil is etymologically "the city of the four gods;" but it is not known which are the deities intended. This place is first mentioned in the reign of Shamas-Vul, the son of the Black Obelisk king, about B.C. 850.

site. Such are Zaban and Zadu, beyond the Lower Zab, probably somewhere in the vicinity of Kerkuk; Kurban, Tidu (?), Napulu, Kapa, in Adiabené; Arapkha and Khaparkhu, the former of which names recalls the Arrapachitis of Ptolemy,[3] in the district about Arbela; Hurakha, Sallat (?), Dur-Tila, Dariga, Lupdu, and many others, concerning whose situations it is not even possible to make any reasonable conjecture. The whole country between the Tigris and the mountains was evidently studded thickly with towns, as it is at the present day with ruins;[4] but until a minute and searching examination of the entire region has taken place, it is idle to attempt an assignment to particular localities of these comparatively obscure names.

In Western Assyria, or the tract on the right bank of the Tigris, while there is reason to believe that population was as dense, and that cities were as numerous, as on the opposite side of the river,[5] even fewer sites can be determinately fixed, owing to the early decay of population in those parts, which seem to have fallen into their present desert condition shortly after the destruction of the Assyrian empire by the conquering Medes. Besides Asshur, which is fixed to the ruins at Kileh-Sherghat, we can only locate with certainty some half-dozen places. These are Nazibina, which is the modern Nisibin, the Nisibis of the Greeks; Amidi, which is Amida or Diarbekr; Haran,[6] which retains its name unchanged; Sirki, which is the Greek Circesium,[7] now Kerkesiyeh; Anat, now Anah, on an island in the Euphrates; and Sidikan, now Arban, on the Lower Khabour. The other known towns of this region, whose exact position is more or less uncertain, are the following:—Tavnusir, which is perhaps Dunisir, near Mardin; Guzana, or Gozan,[8] in the vicinity of Nisibin; Razappa, or Rezeph, probably not far from

[3] *Geograph.* vi. 1. Arapkha would be etymologically "the four fish," a name not very intelligible. It was certainly to the east of the Tigris, and probably not far from Arbela.

[4] *Journal of Asiatic Soc.* vol. xv. p. 304.

[5] Layard, *Nineveh and its Remains*, vol. i. p. 315; *Nineveh and Babylon*, pp. 245, 246.

[6] The name of Haran has not, I believe, been found in the Assyrian inscriptions; but it is mentioned in Kings and Chronicles as an Assyrian city. (2 Kings xix. 12; 1 Chron. v. 26.)

[7] See Mr. Fox Talbot's *Assyrian Texts Translated*, p. 31.

[8] See 2 Kings, l. s. c.

Harran; Tel-Apni, about Orfah or Ras-el-Ain; Tabiti and Magarisi, on the Jerujer, or river of Nisibin; Katni and Beth-Khalupi, on the Lower Khabour; Tsupri and Nakarabani, on the Euphrates, between its junction with the Khabour and Anah; and Khuzirina, in the mountains near the source of the Tigris. Besides these, the inscriptions contain a mention of some scores of towns wholly obscure, concerning which we cannot even determine whether they lay west or east of the Tigris.

Such are the chief geographical features of Assyria. It remains to notice briefly the countries by which it was bordered.

To the east lay the mountain region of Zagros, inhabited principally, during the earlier times of the Empire, by the Zimri, and afterwards occupied by the Medes, and known as a portion of Media. This region is one of great strength, and at the same time of much productiveness and fertility. Composed of a large number of parallel ridges, Zagros contains, besides rocky and snow-clad summits, a multitude of fertile valleys, watered by the great affluents of the Tigris or their tributaries, and capable of producing rich crops with very little cultivation. The sides of the hills are in most parts clothed with forests of walnut, oak, ash, plane, and sycamore, while mulberries, olives, and other fruit-trees abound; in many places the pasturage is excellent; and thus, notwithstanding its mountainous character, the tract will bear a large population.[9] Its defensive strength is immense, equalling that of Switzerland before military roads were constructed across the High Alps. The few passes by which it can be traversed seem, according to the graphic phraseology of the ancients, to be carried up ladders;[1] they surmount six or seven successive ridges, often reaching the elevation of 10,000 feet,[2] and are only open during seven

[9] See Rich's *Kurdistan*, vol. i. pp. 48–192; Ker Porter, *Travels*, vol. ii. pp. 137–219; Ainsworth, *Travels*, vol. ii. pp. 183–326; Layard, *Nineveh and its Remains*, vol. i. pp. 153–235; *Nineveh and Babylon*, pp. 367–384, and 416–436; *Journal of Geographical Society*, vol. ix. pp. 26–56, &c.; Fraser, *Travels in Kurdistan*, vol. i. pp. 89–195; vol. ii. pp. 179–204.

[1] Diod. Sic. xix. 21, § 2. Compare Kinneir, *Persian Empire*, p. 74; and see also Ainsworth's *Researches*, pp. 224, 225.

[2] Layard, *Nineveh and Babylon*, p. 430; *Journal of Geographical Society*, vol. xvi. p. 49.

months of the year. Nature appears to have intended Zagros as a sevenfold wall for the protection of the fertile Mesopotamian lowland from the marauding tribes inhabiting the bare plateau of Iran.

North of Assyria lay a country very similar to the Zagros region. Armenia, like Kurdistan, consists, for the most part, of a number of parallel mountain ranges,[3] with deep valleys between them, watered by great rivers or their affluents. Its highest peaks, like those of Zagros, ascend considerably above the snow-line.[4] It has the same abundance of wood, especially in the more northern parts; and though its valleys are scarcely so fertile, or its products so abundant and varied, it is still a country where a numerous population may find subsistence. The most striking contrast which it offers to the Zagros region is in the direction of its mountain ranges. The Zagros ridges run from north-west to south-east, like the principal mountains of Italy, Greece, Arabia, Hindustan, and Cochin China; those of Armenia have a course from a little north of east to a little south of west, like the Spanish Sierras, the Swiss and Tyrolese Alps, the Southern Carpathians, the Greater Balkan, the Cilician Taurus, the Cyprian Olympus, and the Thian Chan. Thus the axes of the two chains are nearly at right angles to one another, the triangular basin of Vau occurring at the point of contact, and softening the abruptness of the transition. Again, whereas the Zagros mountains present their gradual slope to the Mesopotamian lowland, and rise in higher and higher ridges as they recede from it, the mountains of Armenia ascend at once to their full height from the level of the Tigris, and the ridges then gradually decline towards the Euxine. It follows from this last contrast, that, while Zagros invites the inhabitants of the Mesopotamian plain to penetrate its recesses, which are at first readily accessible, and only grow wild and savage towards the interior, the Armenian mountains repel by presenting their greatest difficulties and most barren aspect at once, seeming, with their rocky sides and snow-clad summits, to form an almost

[3] Layard, *Nineveh and Babylon*, pp. 6, 7. Compare Strab. xi. 12, § 4.
[4] Chesney, *Euphrates Expedition*, vol. i. p. 69; Layard, l. s. c.

insurmountable obstacle to an invading host. Assyrian history bears traces of this difference; for while the mountain region to the east is gradually subdued and occupied by the people of the plain, that on the north continues to the last in a state of hostility and semi-independence.

West of Assyria (according to the extent which has here been given to it), the border countries were, towards the south, Arabia, and towards the north, Syria. A desert region, similar to that which bounds Chaldæa in this direction, extends along the Euphrates as far north as the 36th parallel, approaching commonly within a very short distance of the river. This has been at all times the country of the wandering Arabs. It is traversed in places by rocky ridges of a low elevation, and intercepted by occasional *wadys;* but otherwise it is a continuous gravelly or sandy plain,[5] incapable of sustaining a settled population. Between the desert and the river intervenes commonly a narrow strip of fertile territory, which in Assyrian times was held by the Tsukhi or Shuhites, and the Aramæans or Syrians. North of the 36th parallel, the general elevation of the country west of the Euphrates rises. There is an alternation of bare undulating hills and dry plains, producing wormwood and other aromatic plants.[6] Permanent rivers are found, which either terminate in salt lakes or run into the Euphrates. In places the land is tolerably fertile, and produces good crops of grain, besides mulberries, pears, figs, pomegranates, olives, vines, and pistachio-nuts.[7] Here dwelt, in the time of the Assyrian Empire, the Khatti, or Hittites, whose chief city, Carchemish, appears to have occupied the site of Hierapolis, now Bambuk. In a military point of view, the tract is very much less strong than either Armenia or Kurdistan, and presents but slight difficulties to invading armies.

The tract south of Assyria was Chaldæa, of which a description has been given in an earlier portion of this volume.[8]

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[5] Niebuhr, *Description de l'Arabie*, p. 2.

[6] Ainsworth, *Travels in the Track of the Ten Thousand*, p. 67; Pocock, *Description of the East*, vol. ii. pp. 150–172.

[7] Ainsworth, *Travels and Researches*, vol. i. pp. 305–358; Pocock, *Description*, &c., vol. ii. p. 155.

[8] Supra, pp. 3–14.

Naturally, it was at once the weakest of the border countries and the one possessing the greatest attractions to a conqueror. Nature had indeed left it wholly without defence; and though art was probably soon called in to remedy this defect, yet it could not but continue the most open to attack of the various regions by which Assyria was surrounded. Syria was defended by the Euphrates—at all times a strong barrier; Arabia, not only by this great stream, but by her arid sands and burning climate; Armenia and Kurdistan had the protection of their lofty mountain ranges. Chaldæa was naturally without either land or water barrier; and the mounds and dykes whereby she strove to supply her want were at the best poor substitutes for Nature's bulwarks. Here again geographical features will be found to have had an important bearing on the course of history, the close connexion of the two countries, in almost every age, resulting from their physical conformation.

CHAPTER II.

CLIMATE AND PRODUCTIONS.

"Assyria, celebritate et magnitudine, et multiformi feracitate ditissima."—AMM. MARC. xxiii. 6.

IN describing the climate and productions of Assyria, it will be necessary to divide it into regions; since the country is so large and the physical geography so varied, that a single description would necessarily be both incomplete and untrue. Eastern Assyria has a climate of its own, the result of its position at the foot of Zagros. In Western Assyria we may distinguish three climates, that of the upper or mountainous country extending from Bir to Til and Jezireh, that of the middle region on either side of the Sinjar range, and that of the lower region immediately bordering on Babylonia. The climatic differences depend in part on latitude; but probably in a greater degree on differences of elevation, distance or vicinity of mountains, and the like.

Eastern Assyria, from its vicinity to the high and snow-clad range of Zagros, has a climate at once cooler and moister than Assyria west of the Tigris. The summer heats are tempered by breezes from the adjacent mountains, and, though trying to the constitution of an European, are far less oppressive than the torrid blasts which prevail on the other side of the river.[1] A good deal of rain falls in the winter, and even in the spring; while, after the rains are past, there is frequently an abundant dew,[2] which supports vegetation and helps to give coolness to the air. The winters are moderately severe.[3]

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[1] *Journal of Asiatic Society*, vol. xv. p. 299. Eastern Assyria is not, however, entirely free from the "torrid blasts," which are the curse of these countries. Mr. Layard experienced at Koyunjik "the *sherghis*, or burning winds from the south, which occasionally swept over the country, driving in their short-lived fury everything before them." (*Nineveh and Babylon*, p. 364.)

[2] *Journal of Asiatic Society*, l. s. c.

[3] Ainsworth's *Assyria*, p. 32.

In the most southern part of Assyria, from lat. 34° to 35° 30′, the climate scarcely differs from that of Babylonia, which has been already described.[4] The same burning summers, and the same chilly, but not really cold, winters prevail in both districts; and the time and character of the rainy season is alike in each. The summers are perhaps a little less hot, and the winters a little colder than in the more southern and alluvial region; but the difference is inconsiderable, and has never been accurately measured.

In the central part of Western Assyria, on either side of the Sinjar range, the climate is decidedly cooler than in the region adjoining Babylonia. In summer, though the heat is great, especially from noon to sunset,[5] yet the nights are rarely oppressive, and the mornings are enjoyable. The spring-time in this region is absolutely delicious;[6] the autumn is pleasant; and the winter, though cold and accompanied by a good deal of rain and snow,[7] is rarely prolonged and never intensely rigorous. Storms of thunder and lightning are frequent,[8] especially in spring, and they are often of extraordinary violence: hailstones fall of the size of pigeon's eggs;[9] the lightning is incessant; and the wind rages with fury. The force of the tempest is, however, soon exhausted; in a few hours' time it has passed away, and the sky is once more cloudless; a delightful calm and freshness pervade the air, producing mingled sensations of pleasure and repose.[1]

The mountain tract, which terminates Western Assyria to the north, has a climate very much more rigorous than the central region. The elevation of this district is considerable,[2] and the near vicinity of the great mountain country of Armenia, with its eternal snows and winters during half the year, tends greatly to lower the temperature, which in the winter descends to eight

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[4] Supra, pp. 28–30.

[5] Chesney, *Euphrates Expedition*, vol. i. p. 106.

[6] See Mr. Layard's account of his visit to the Sinjar and the Khabour in 1850. (*Nineveh and Babylon*, pp. 234–336; cf. particularly pp. 246, 269, 273, and 324.)

[7] Chesney, l. s. c.

[8] Layard, *Nineveh and its Remains*, vol. i. p. 124, vol. ii. p. 54; *Nineveh and Babylon*, pp. 242, 243, and 294, 295; Rich's *Kurdistan*, vol. i. p. 10.

[9] Layard, *Nineveh and Babylon*, p. 294; Jones, *Journal of Asiatic Society*, vol. xv. p. 360.

[1] Layard, ibid. p. 243.

[2] Mr. Ainsworth estimates the average elevation at 1300 feet (*Assyria*, p. 29).

or ten degrees below zero.[3] Much snow then falls, which usually lies for some weeks; the spring is wet and stormy, but the summer and the autumn are fine; and in the western portion of the region, about Harran and Orfah, the summer heat is great. The climate is here an "extreme" one, to use an expression of Humboldt's—the range of the thermometer being even greater than it is in Chaldæa, reaching nearly (or perhaps occasionally exceeding) 120 degrees.[4]

Such is the present climate of Assyria, west and east of the Tigris. There is no reason to believe that it was very different in ancient times. If irrigation was then more common and cultivation more widely extended, the temperature would no doubt have been somewhat lower and the air more moist. But neither on physical nor on historical grounds can it be argued, that the difference thus produced was more than slight. The chief causes of the remarkable heat of Mesopotamia—so much exceeding that of many countries under the same parallels of latitude—are its near vicinity to the Arabian and Syrian deserts, and its want of trees, those great refrigerators.[5] While the first of these causes would be wholly untouched by cultivation, the second would be affected in but a small degree. The only tree, which is known to have been anciently cultivated in Mesopotamia, is the date-palm; and as this ceases to bear fruit[6] about lat. 35°, its greater cultivation could have prevailed only in a very small portion of the country, and so would have effected the general climate but little. Historically, too, we find, among the earliest notices which have any climatic bearing, indications that the temperature and the consequent condition of the country were anciently very nearly what they now are. Xenophon speaks of the barrenness of the tract between the Khabour and Babylonia,

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[3] Chesney, *Euphrates Expedition*, vol. i. p. 107.

[4] Colonel Chesney says: "The heat in summer is 110° under a tent." (*Euphrates Expedition*, l. s. c.) Mr. Ainsworth says the thermometer reaches 115° in the shade (p. 31).

[5] Humboldt mentions three ways in which trees cool the air, viz., by cooling shade, by evaporation, and by radiation. "Forests," he says, "protect the ground from the direct rays of the sun, evaporate fluids elaborated by the trees themselves, and cool the strata of air in immediate contact with them by the radiation of heat from their appendicular organs or leaves." (*Aspects of Nature*, vol. i. p. 127, E. T.)

[6] Chesney, *Euphrates Expedition*, vol. i. p. 106.

and the entire absence of forage in as strong terms as could be used at the present day.[7] Arrian, following his excellent authorities, notes that Alexander, after crossing the Euphrates, kept close to the hills, "because the heat there was not so scorching as it was lower down, and because he could then procure green food for his horses."[8] The animals too which Xenophon found in the country are either such as now inhabit it,[9] or where not such, they are the denizens of hotter rather than colder climates and countries.[1]

The fertility of Assyria is a favourite theme with the ancient writers.[2] Owing to the indefiniteness of their geographical terminology, it is however uncertain, in many cases, whether the praise which they bestow upon Assyria is really intended for the country here called by that name, or whether it does not rather apply to the alluvial tract already described, which is more properly termed Chaldæa or Babylonia. Naturally Babylonia is very much more fertile than the greater part of Assyria, which being elevated above the courses of the rivers, and possessing a saline and gypsiferous soil, tends, in the absence of a sufficient water supply, to become a bare and arid desert. Trees are scanty in both regions except along the river courses; but in Assyria, even grass fails after the first burst of spring; and the plains, which for a few weeks have been carpeted with the tenderest verdure and thickly strewn with the brightest and loveliest flowers,[3] become, as the summer advances, yellow, parched, and almost herbless. Few things are more remarkable than the striking difference between the appearance of the same

[7] Xen. *Anab.* i. 5, § 5. Οὐ γὰρ ἦν χόρτος, οὐδὲ ἄλλο δένδρον οὐδὲν, ἀλλὰ ψιλὴ ἦν ἅπασα ἡ χώρα.

[8] Arrian, *Exp. Alex.* iii. 7.

[9] As bustards, antelopes, and wild asses.

[1] As the ostrich. It is curious that Heeren should regard the wild ass as gone from Mesopotamia, and the ostrich as still occurring. (*As. Nat.* vol. i. pp. 132, 133, E. T.) His statement exactly inverts the truth.

[2] Herod. i. 193; Strab. xvi. 1, § 14; Dionys. Perieg. 992–999; Plin. *H. N.* vi. 26; Amm. Marc. xxiii. 6, &c.

[3] This peculiarity did not escape Dionysius, a native of Charax, on the Persian Gulf (Plin. *H. N.* vi. 27), who speaks feelingly of the "flowery pastures" (νομοὺς εὐανθέας) of Mesopotamia (l. 1000). Mr. Layard constantly alludes to the wonderful beauty of the spring flowers in the country at the foot of the Sinjar. (*Nineveh and Babylon*, pp. 268, 273, 301, &c.) Mr. Rich notices the same features in the country near Kerkuk (*Kurdistan*, vol. i. p. 47). Captain Jones remarks similarly of the tract in the vicinity of Nimrud. (*Journal of Asiatic Society*, vol. xv. pp. 372, 375.)

tract in Assyria at different seasons of the year. What at one time is a garden, glowing with brilliant hues and heavy with luxuriant pasture, on which the most numerous flocks can scarcely make any sensible impression, at another is an absolute waste, frightful and oppressive from its sterility.[4]

If we seek the cause of this curious contrast, we shall find it in the productive qualities of the soil, wherever there is sufficient moisture to allow of their displaying themselves, combined with the fact, already noticed, that the actual supply of water is deficient. Speaking generally, we may say with truth, as was said by Herodotus more than two thousand years ago—that "but little rain falls in Assyria,"[5] and, if water is to be supplied in adequate quantity to the thirsty soil, it must be derived from the rivers. In most parts of Assyria there are occasional rains during the winter, and in ordinary years, frequent showers in early spring. The dependance of the present inhabitants both for pasture and for grain is on these. There is scarcely any irrigation;[6] and though the soil is so productive that wherever the land is cultivated, good crops are commonly obtained by means of the spring rains, while elsewhere nature at once spontaneously robes herself in verdure of the richest kind, yet no sooner does summer arrive than barrenness is spread over the scene; the crops ripen and are gathered in; "the grass withereth, the flower fadeth;"[7] the delicate herbage of the plains shrinks back and disappears; all around turns to a uniform dull straw-colour; nothing continues to live but what is coarse, dry, and sapless; and so the land, which was lately an Eden, becomes a desert.

Far different would be the aspect of the region, were a due use made of that abundant water supply—actually most lavish in the summer time, owing to the melting of the snows[8]—which nature has provided in the two great Mesopotamian rivers and their tributaries. So rapid is the fall of the two main-streams in their upper course, that by channels derived from them, with

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[4] Layard, *Nineveh and its Remains*, vol. ii. p. 70.

[5] Herod. i. 193. Ἡ γὴ τῶν Ἀσσυρίων ὕεται μὲν ὀλίγῳ.

[6] Layard, ut supra, p. 69.

[7] Isaiah xl 7.

[8] See above, p. 12.

the help perhaps of dams thrown across them at certain intervals, the water might be led to almost any part of the intervening country, and a supply kept up during the whole year. Or, even without works of this magnitude, by hydraulic machines of a very simple construction, the life-giving fluid might be raised from the great streams and their affluents in sufficient quantity to maintain a broad belt on either side of the river-courses in perpetual verdure. Anciently, we know that recourse was had to both of these systems. In the tract between the Tigris and the Upper Zab, which is the only part of Assyria that has been minutely examined, are distinct remains of at least one Assyrian canal, wherein much ingenuity and hydraulic skill is exhibited, the work being carried through the more elevated ground by tunnelling, and the canal led for eight miles contrary to the natural course of every stream in the district.[9] Sluices and dams, cut sometimes in the solid rock, regulated the supply of the fluid at different seasons, and enabled the natives to make the most economical application of the great fertiliser. The use of the hand-swipe was also certainly known, since it is mentioned by Herodotus,[1] and even represented upon the sculptures. Very probably other more elaborate machines were likewise employed, unless the general prevalency of canals superseded their necessity. It is certain that over wide districts, now dependant for productive power wholly on the spring rains, and consequently quite incapable of sustaining a settled population, there must have been maintained in Assyrian times some effective water-system, whereby regions that at present with difficulty furnish a few months' subsistence to the wandering Arab tribes, were enabled to supply to scores of populous cities sufficient food for their consumption.[2]

Hand-swipe (Koyunjik).

We have not much account of the products of Assyria Proper

[9] See the account of these works, given by Captain Jones in the *Journal of the Asiatic Society*, vol. xv. pp. 310, 311. Compare Layard, *Nineveh and its Remains*, vol. i. pp. 80, 81.

[1] Herodotus calls it κελωνήϊον (i. 193).

[2] See Layard, *Nineveh and Babylon*, p. 241.

in early times. Its dates were of small repute, being greatly inferior to those of Babylon.[3] It grew a few olives in places,[4] and some spicy shrubs,[5] which cannot be identified with any certainty. Its cereal crops were good, and may perhaps be regarded as included in the commendations bestowed by Herodotus[6] and Strabo[7] on the grain of the Mesopotamian region. The country was particularly deficient in trees, large tracts growing nothing but wormwood and similar low shrubs,[8] while others were absolutely without either tree or bush.[9] The only products of Assyria which acquired such note as to be called by its name were its silk[10] and its citron trees. The silk, according to Pliny, was the produce of a large kind of silkworm not found elsewhere.[11] The citron trees obtained a very great celebrity. Not only were they admired for their perpetual fruitage, and their delicious odour;[12] but it was believed that the fruit which they bore was an unfailing remedy against poisons.[1] Numerous attempts were made to naturalize the tree in other countries; but up to the time when Pliny wrote, every such attempt had failed, and the citron was still confined to Assyria, Persia, and Media.[2]

It is not to be imagined that the vegetable products of Assyria were confined within the narrow compass which the ancient notices might seem to indicate. Those notices are casual, and it is evident that they are incomplete; nor will a just notion be obtained of the real character of the region, unless we take into

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[3] Pliny speaks of the Assyrian dates as used chiefly for fattening pigs and other animals. (*Hist. Nat.* xiii. 4, sub fin.)

[4] As in Chalonitis. (Plin. *H. N.* vi. 27.)

[5] Strab. xvi. 1, § 24, sub fin.; Xen. *Anab.* i. 5, § 1.

[6] Herod. i. 192. Mr. Layard remarks that the kinds of grain mentioned by Herodotus, sesame, millet, wheat, and barley, still constitute "the principal agricultural produce of Assyria." (*Nineveh and its Remains*, vol. ii. p. 423.)

[7] Strab. xvi. 1, § 14.

[8] Xen. *Anab.* i. 5, § 1.

[9] Ibid. i. 5, § 5. See the passage quoted at length in note [7], page 213.

[10] Pliny speaks of "Assyrian silk" as a proper dress for women. ("Assyriâ tamen bombyce adhuc feminis cedimus." —*H. N.* xi. 23.)

[11] Ibid. xi. 22.

[12] Ibid. xii. 3. "Odore præcellit foliorum quoque, qui transit in vestes unà conditus arcetque animalium noxia. Arbor ipsa omnibus horis pomifera est, aliis cadentibus, aliis maturescentibus, aliis verò subnascentibus."

[1] Ibid. l. s. c. "Malus Assyria, quam alii Medicam vocant, venenis medetur." Compare Virg. *Georg.* ii. 126; Solin. 49, &c.

[2] Plin. *H. N.* xii. 3; xvi. 32; Solin. l. s. c.

account such of the present products as may be reasonably supposed to be indigenous. Now, setting aside a few plants of special importance to man, the cultivation of which may have been introduced, such as tobacco, rice, Indian corn, and cotton, we may fairly say that Assyria has no exotics, and that the trees, shrubs, and vegetables now found within her limits are the same in all probability as grew there anciently. In order to complete our survey, we may therefore proceed to inquire, what are the chief vegetable products of the region at the present time.

In the south the date-palm grows well as far as Anah on the Euphrates and Tekrit on the Tigris. Above that latitude it languishes, and ceases to give fruit altogether about the junction of the Khabour with the one stream and the Lesser Zab with the other.[3] The unproductive tree, however, which the Assyrians used for building purposes,[4] will grow and attain a considerable size to the very edge of the mountains.[5] Of other timber trees the principal are the sycamore and the oriental plane, which are common in the north; the oak, which abounds about Mardin[6] (where it yields gall-nuts and the rare product manna), and which is also found in the Sinjar and Abd-el-Aziz ranges;[7] the silver poplar, which often fringes the banks of the streams;[8] the sumac, which is found on the Upper Euphrates;[9] and the walnut, which grows in the Jebel Tur, and is not uncommon between the foot of Zagros and the outlying ranges of hills.[10] Of fruit-trees the most important are the orange, lemon, pomegranate, apricot, olive, vine, fig, mulberry, and pistachio-nut. The pistachio-nut grows wild in the northern mountains, especially between Orfah and Diarbekr.[11] The fig is cultivated with much care in the Sinjar.[12] The vine

[3] Chesney, *Euphrates Expedition*, vol. i. p. 107; Layard, *Nineveh and its Remains*, vol. ii. p. 423.

[4] Strabo, xvi. 1, § 5; Plin. *H. N.* xiii. 4.

[5] Chesney, l. s. c.; Layard, l. s. c.

[6] Niebuhr, *Voyage en Arabie*, p. 323. (Compare his *Description de l'Arabie*, p. 128.) Mr. Berrington observed two species of oak in the Jebel Tur, one of which he identified with the Valonia oak.

[7] Layard, *Nineveh and Babylon*, pp. 256 and 312.

[8] Chesney, p. 108.

[9] Ainsworth, *Assyria*, p. 34.

[10] Layard, *Nineveh and Babylon*, p. 366. Mr. Berrington found walnuts near Ain Kaf in the Jebel Tur range.

[11] Pocock, *Description of the East*, vol. ii. pp. 158 and 163.

[12] It is grown on terraces, like the vine in Switzerland and on the banks

is also grown in that region,[1] but bears better on the skirts of the hills above Orfah and Mardin.[2] Pomegranates flourish in various parts of the country. Oranges and lemons belong to its more southern parts, where it verges on Babylonia.[3] The olive clothes the flanks of Zagros in places.[4] Besides these rarer fruits, Assyria has chesnuts, pears, apples, plums, cherries, wild and cultivated, quinces, apricots, melons, and filberts.

The commonest shrubs are a kind of wormwood—the *apsinthium* of Xenophon—which grows over much of the plain extending south of the Khabour[5]—and the tamarisk. Green myrtles, and oleanders with their rosy blossoms, clothe the banks of some of the smaller streams between the Tigris and Mount Zagros;[6] and a shrub of frequent occurrence is the liquorice plant.[7] Of edible vegetables there is great abundance. Truffles[8] and capers[9] grow wild; while peas, beans, onions, spinach, cucumbers, and lentils are cultivated successfully.[10] The carob (*Ceratonia Siliqua*) must also be mentioned as among the rarer products of this region.[11]

It was noticed above that manna is gathered in Assyria from the dwarf oak. It is abundant in Zagros, and is found also in the woods about Mardin, and again between Orfah and Diarbekr. According to Mr. Rich, it is not confined to the dwarf oak, or even to trees and shrubs, but is deposited also on sand, rocks, and stone.[12] It is most plentiful in wet seasons, and especially after fogs;[1] in dry seasons it fails almost totally. The natives

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of the Rhine. (Layard, *Nin. and Babylon*, pp. 254, 255.) Niebuhr speaks of the Sinjar figs as in great request—"fort recherchés." (*Voyage en Arabie*, p. 315.)

[1] Layard, l. s. c. The vine is also cultivated at Bavian (Berrington) and near Kerkuk (Rich, *Kurdistan*, vol. i. p. 50).

[2] Pocock, vol. ii. p. 158; Niebuhr, p. 318. The vine was at one time cultivated as low down as the commencement of the alluvium. See Amm. Mar. xxiv. 3 and 6.

[3] Layard, p. 472; Loftus, *Chaldæa and Susiana*, p. 5; Rich, *Kurdistan*, vol. i. p. 26.

[4] Layard, *Nineveh and its Remains*, vol. ii. p. 423; *Nin. and Bab.* pp. 123, 132.

[5] Ainsworth, *Travels in the Track of the Ten Thousand*, p. 76. Wormwood abounds also near Jumeila, in the Kerkuk district (Rich, *Kurdistan*, vol. i. p. 41).

[6] Layard, *Nin. and Bab.* pp. 216 and 366. [7] Chesney, l. s. c.

[8] Layard, p. 315. [9] Chesney, l. s. c.

[10] See for most of these the account of Colonel Chesney (l. s. c.). Lentils are mentioned by Niebuhr (*Voyage en Arabie*, p. 295); cucumbers by Mr. Layard (*Nin. and Bab.* p. 224).

[11] Chesney, l. s. c.

[12] Rich, *Kurdistan*, vol. i. p. 143. Compare Chesney, *Euphrates Exp.* vol. i. p. 123.

[1] Chesney, l. s. c. Compare Niebuhr, *Description de l'Arabie*, p. 128.

collect it in spring and autumn. The best and purest is that taken from the ground; but by far the greater quantity is obtained from the trees, by placing cloths under them and shaking the branches. The natives use it as food both in its natural state and manufactured into a kind of paste. It soon corrupts; and in order to fit it for exportation, or even for the storeroom of the native housewife, it has to undergo the process of boiling.[2] When thus prepared, it is a gentle purgative; but, in its natural state and when fresh, it may be eaten in large quantities without any unpleasant consequences.[3]

Assyria is far better supplied with minerals than Babylonia. Stone of a good quality, either limestone, sandstone, or conglomerate, is always at hand; while a tolerable clay is also to be found in most places. If a more durable material is required, basaltic rock may be obtained from the Mons Masius—a substance almost as hard as granite.[4] On the left bank of the Tigris a soft grey alabaster abounds, which is easily cut into slabs, and forms an excellent material for the sculptor.[5] The neighbouring mountains of Kurdistan contain marbles of many different qualities; and these could be procured without much difficulty by means of the rivers. From the same quarter it was easy to obtain the most useful metals. Iron, copper, and lead, are found in great abundance in the Tiyari Mountains within a short distance of Nineveh;[6] where they crop out upon the surface, so that they cannot fail to be noticed. Lead and copper are also obtainable from the neighbourhood of Diarbekr.[7] The Kurdish Mountains may have supplied other metals. They still produce silver and antimony;[8] and it is possible that they may anciently have furnished gold and tin. As their mineral riches have never been explored by scientific persons, it is very probable that they may contain many other metals besides those which they are at present known to yield.[9]

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[2] Chesney, p. 124.

[3] Niebuhr, p. 129.

[4] Layard, *Nin. and its Remains*, vol. ii. p. 316.

[5] Ibid. pp. 313, 314. This is the material universally employed for the bas-reliefs.

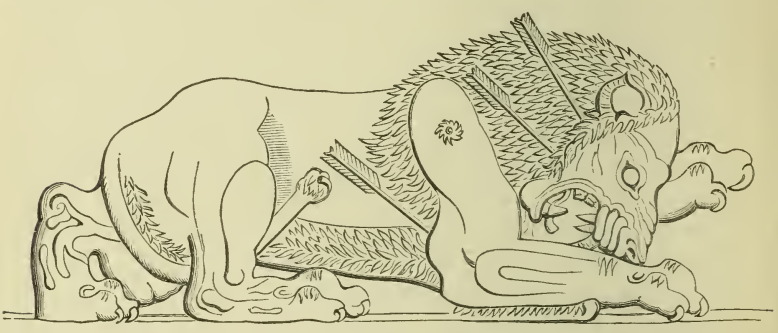
[6] Ibid. vol. i. p. 223; vol. ii. p. 415.

[7] Chesney, vol. i. p. 108.

[8] Layard, *Nin. and its Remains*, vol. ii. pp. 417–419.

[9] Mr. Rich observed traces of iron in more places than one. (*Kurdistan*, vol. i. pp. 176 and 222.)

Among the mineral products of Assyria—bitumen, naphtha, petroleum, sulphur, alum, and salt, have also to be reckoned. The bitumen pits of Kerkuk, in the country between the Lesser Zab and the Adhem, are scarcely less celebrated than those of Hit;[1] and there are some abundant springs of the same character close to Nimrud, in the bed of the Shor Derreh torrent.[2] The Assyrian palaces furnish sufficient evidence that the springs were productive in old times; for the employment of bitumen as a cement, though not so frequent as in Babylonia, is yet occasionally found in them.[3] With the bitumen are always procured both naphtha and petroleum;[4] while at Kerkuk there



Assyrian Lion, from Nimrud.

is an abundance of sulphur also.[5] Salt is obtained from springs in the Kerkuk country;[6] and is also formed in certain small lakes lying between the Sinjar and Babylonia.[7] Alum is plentiful in the hills about Kifri.[8]

The most remarkable wild animals of Assyria are the follow-

[1] See Niebuhr's *Voyage en Arabie*, p. 275; Ker Porter, *Travels*, vol. ii. pp. 440–442; Rich, *Kurdistan*, vol. i. p. 31; *First Memoir on Babylon*, p. 63.

[2] Layard, *Nin. and Bab.* p. 202; Jones, *Journal of Asiatic Society*, vol. xv. p. 371. The position of the chief springs is marked in the plan, supra, p. 200. There are other naphtha springs near Kifri. (Rich, *Kurdistan*, vol. i. p. 29.)

[3] In his first work Mr. Layard doubted the use of bitumen as a cement in Assyria (*Nineveh and its Remains*, vol. ii. pp. 278, 279); but subsequently he found some traces of its employment (*Nin. and Bab.* p. 203, &c.). M. Botta represents the use of it as common both at Khorsabad and Koyunjik (*Letters from Nineveh*, p. 43).

[4] See above, p. 39.

[5] Ker Porter, *Travels*, vol. ii. p. 441.

[6] Rich, *Kurdistan*, vol. i. p. 27.

[7] Layard, *Nineveh and Babylon*, p. 256.

[8] Rich, p. 29.

ing:—the lion, the leopard, the lynx, the wild-cat, the hyæna, the wild-ass, the bear, the deer, the gazelle, the ibex, the wild-sheep, the wild-boar, the jackal, the wolf, the fox, the beaver, the jerboa, the porcupine, the badger, and the hare. The Assyrian lion is of the maneless kind, and in general habits resembles the lion of Babylonia. The animal is comparatively rare in the eastern districts, being seldom found on the banks of the Tigris above Baghdad, and never above Kileh-Sherghat.[9]

Ibex, or Wild-Goat, from Nimrud.

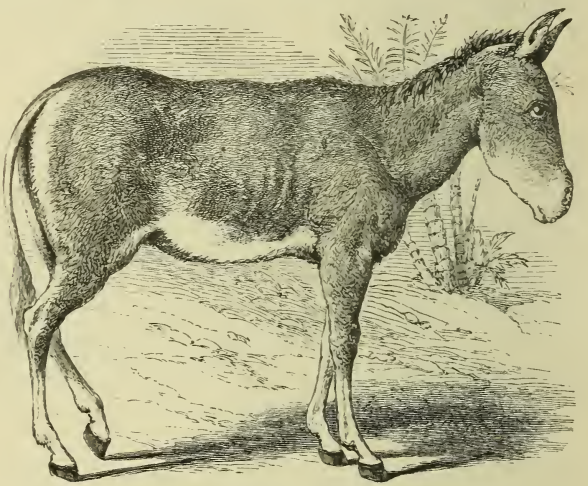
On the Euphrates it has been seen as high as Bir; and it is frequent on the banks of the Khabour, and in the Sinjar.[10] It has occasionally that remarkable peculiarity—so commonly represented on the sculptures—a short horny claw at the extremity of the tail in the middle of the ordinary tuft of hair.[1] The ibex or wild-goat—also a favourite subject with the Assyrian sculptors—is frequent in Kurdistan, and moreover abounds on the highest ridges of the Abd-el-Aziz and the Sinjar, where it

[9] Layard, *Nin. and its Remains*, vol. ii. p. 48.

[10] Ibid. l. s. c., note. For its frequency in old times, see Amm. Marc. xviii. 7.

[1] Layard, pp. 428, 429.

is approached with difficulty by the hunter.[2] The gazelle, wild-boar, wolf, jackal, fox, badger, porcupine, and hare, are common in the plains, and confined to no particular locality. The jerboa is abundant near the Khabour.[3] Bears and deer are found on the skirts of the Kurdish hills. The leopard, hyæna, lynx, and beaver are comparatively rare. The last-named animal, very uncommon in Southern Asia, was at one time found in large numbers on the Khabour; but in consequence of the value set upon its musk bag, it has been hunted almost



Wild Ass.

to extermination, and is now very seldom seen. The Khabour beavers are said to be a different species from the American. Their tail is not large and broad, but sharp and pointed; nor do they build houses, or construct dams across the stream, but live in the banks, making themselves large chambers above the ordinary level of the floods, which are entered by holes beneath the water-line.[4]

The rarest of all the animals which are still found in Assyria

[2] Layard, *Nineveh and its Remains*, p. 431. Compare *Nin. and Bab.* pp. 256 and 312.

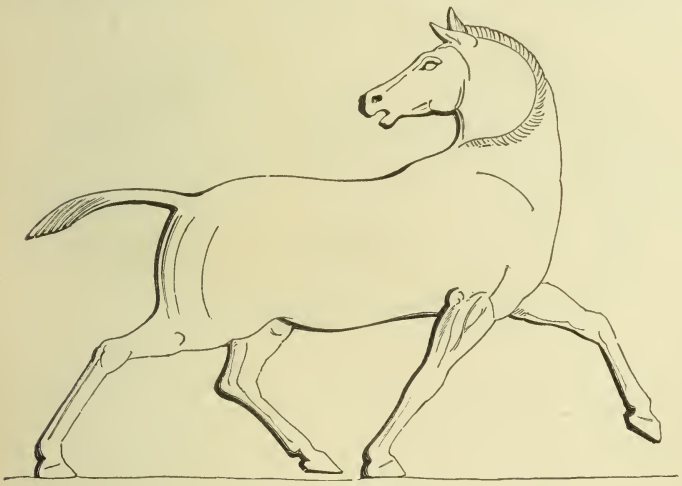
[3] Layard, *Nin. and Bab.* p. 271.

[4] Ibid. pp. 296, 297. Beavers are also found in the Zohab river, a tributary of the Diyaleh.

is the wild ass (*Equus hemionus*). Till the present generation of travellers, it was believed to have disappeared altogether from the region, and to have "retired into the steppes of Mon-

Leopard, from Nimrud.

golia and the deserts of Persia."[5] But a better acquaintance with the country between the rivers has shown, that wild asses, though uncommon, still inhabit the tract where they were seen



Wild Ass, from Koyunjik.

by Xenophon.[6] They are delicately made, in colour varying from a greyish-white in winter to a bright bay, approaching to pink, in the summer-time; they are said to be remarkably

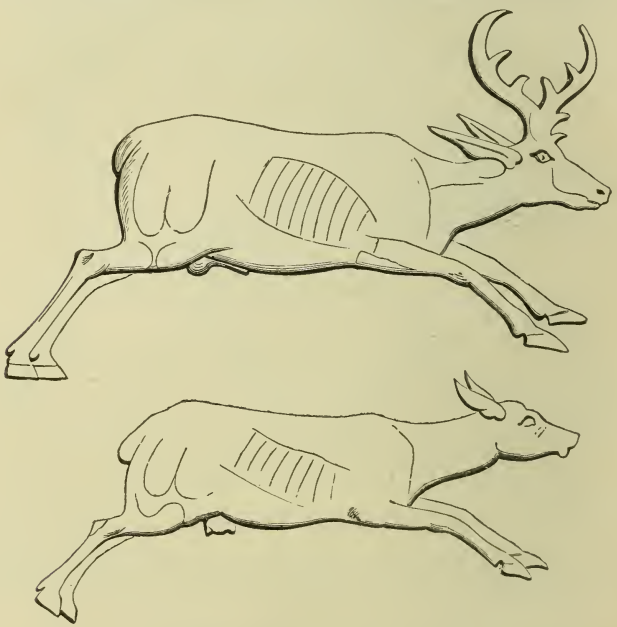
[5] Heeren's *Asiatic Nations*, vol. i. p. 132, E. T.

[6] *Anab.* i. 5, § 2. Xenophon speaks of them as numerous in his day. He calls them "the most common animal" for some distance below the Khabour.

swift. It is impossible to take them when full grown; but the Arabs often capture the foals, and bring them up with milk in their tents. They then become very playful and docile; but it is found difficult to keep them alive; and they have never, apparently, been domesticated. The Arabs usually kill them and eat their flesh.[7]

Gazelle, from Nimrud.

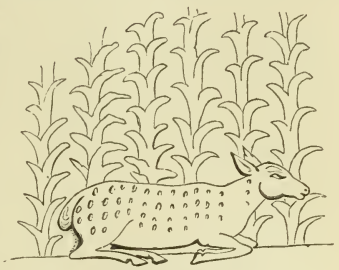
It is probable that all these animals, and some others, inhabited Assyria during the time of the Empire. Lions of two kinds, with and without manes, abound in the sculptures, the former, which do not now exist in Assyria, being the more common. They are represented with a skill and a truth which shows the Assyrian sculptor to have been familiar not only with



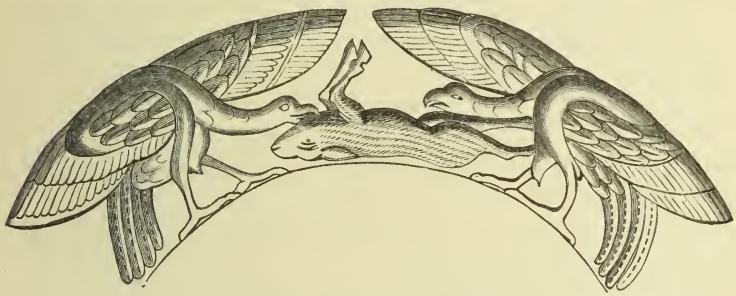
Stag and Hind, from Koyunjik.

[7] Layard, *Nin. and its Remains*, vol. i. pp. 323, 324; *Nin. and Bab.* p. 270; Ainsworth, *Travels*, p. 77.

their forms and proportions, but with their natural mode of life, their haunts, and habits. The leopard is far less often depicted, but appears sometimes in the ornamentation of utensils,[8] and is frequently mentioned in the inscriptions. The wild ass is a favourite subject with the sculptors of the later Empire, and is represented with great spirit, though not with complete accuracy. The ears are too short, the head is too fine, the legs are not fine enough, and the form altogether approaches too nearly to the type of the horse. The deer, the gazelle, and the ibex, all occur frequently; and though the forms are to some extent



Fallow Deer, from Koyunjik.



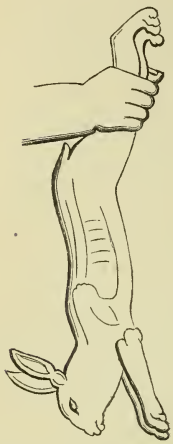
Hare and Eagles, from Nimrud.

conventional, they are not wanting in spirit. Deer are apparently of two kinds. That which is most commonly found appears to represent the grey deer, which is the only species existing at present within the confines of Assyria.[9] The other sort is more delicate in shape, and spotted, seeming to represent the fallow deer, which is not now known in Assyria or the adjacent countries. It sometimes appears wild, lying among the reeds; sometimes tame, in the arms of a priest or of a

[8] See the woodcut, p. 223.

[9] The deer which the army of Julian found in such numbers on the left bank of the Euphrates, a little above Anah, were probably of this species. (Amm. Marc. xxiv. 1.)

winged figure. There is no representation in the sculptures of the wild boar; but a wild sow and pigs are given in one bas-relief,[10] sufficiently indicating the Assyrian acquaintance with this animal. Hares are often depicted, and with much truth; generally they are carried in the hands of men, but sometimes they are being devoured by vultures or eagles.[11] No representations have been found of bears, wild-cats, hyænas, wolves, jackals, wild-sheep, foxes, beavers, jerboas, porcupines, or badgers.



Hare, from Khorsabad.

There is reason to believe that two other animals, which have now altogether disappeared from the country, inhabited at least some parts of Assyria during its flourishing period. One of these is the wild bull—often represented on the bas-reliefs as a beast of chase, and perhaps mentioned as such in the inscriptions.[1] This animal, which is sometimes depicted as engaged in a contest with the lion,[2] must have been of vast strength and boldness. It is often hunted by the king, and appears to have been considered nearly as noble an object of pursuit as the lion. We may presume, from the practice in the adjoining country, Palestine,[3] that the flesh was eaten as food.

The other animal, once indigenous, but which has now disappeared, was called by the Assyrians the *mithin*, and is thought to have been the tiger. Tigers are not now found nearer to Assyria than the country south of the Caspian, Ghilan, and

[10] Supra, p. 40. Both this and the representation on p. 225 of a fallow-deer belong to the decorations of Sennacherib's palace at Koyunjik. They are given by Mr. Layard in his "Second Series" of the *Monuments of Nineveh*, pl. 12.

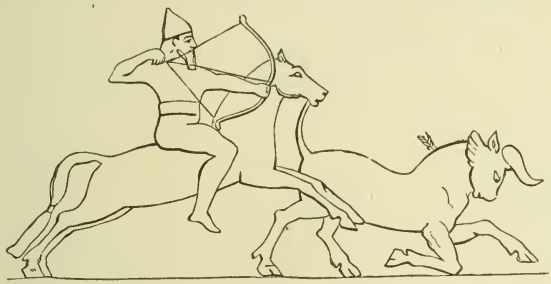
[11] The representation on p. 225 is on one of the beautiful bronze plates or dishes which were brought by Mr. Layard from Nimrud, and are now in the British Museum. The dish is represented in the *Monuments of Nineveh*, second series, pl. 62.

[1] See the *Inscription of Tiglath-Pileser I.*, pp. 54, 55, where both Sir H. Rawlinson and Dr. Hincks understand the wild-bull to be intended. Dr. Hincks reads the word used as *Rim*, which would clearly be identical with the Hebrew רְאֵם, or רִים, translated in our version "unicorn," and sometimes thought to be an antelope, but understood by Gesenius to designate "the wild buffalo." (See his *Lexicon* in voc.)

[2] Layard, *Monuments of Nineveh*, first series, pl. 46 and 48. [3] Deut. xiv. 5.

Mazanderan; but as there is no conceivable reason why they should not inhabit Mesopotamia,[4] and as the *mithin* is constantly joined with the lion, as if it were a beast of the same kind, and of nearly equal strength and courage, we may fairly conjecture that the tiger is the animal intended. If this seem too bold a theory, we must regard the *mithin* as the larger leopard,[5] an animal of considerable strength and ferocity, which, as well as the hunting leopard, is still found in the country.[6]

The birds at present frequenting Assyria are chiefly the following:—The bustard (which is of two kinds—the great and the middle-sized), the egret, the crane, the stork, the pelican, the flamingo, the red partridge, the black partridge or francolin,



Chase of Wild Ox, from Nimrud.

the parrot, the Seleucian thrush (*turdus Seleucus*), the vulture, the falcon or hunting-hawk, the owl, the wild swan, the bramin goose, the ordinary wild goose, the wild duck, the teal, the tern, the sand-grouse, the turtle-dove, the nightingale, the jay, the plover, and the snipe.[7] There is also a large kite or eagle, called "agab," or "the butcher," by the Arabs, which is greatly dreaded by fowlers, as it will attack and kill the falcon no less than other birds.

[4] Diodorus speaks of "Babylonian tigers" as among the animals indigenous in Arabia (ii. 50, § 2).

[5] This animal is now called the *nimr*. The smaller or hunting-leopard (now called *fahad*) is the *nimr* of the Assyrians, an animal of which the inscriptions make frequent mention.

[6] Sir H. Rawlinson brought a specimen of the larger leopard, which he had tamed, from Baghdad to England, and presented it to the Clifton Zoological Gardens. Many visitors will remember *Fahad*, who died in the Gardens in 1858 or 1859.

[7] The authorities for this list are Mr. Berrington, Mr. Layard, and Colonel Chesney. (See the *Euph. Expedition*, vol. i. pp. 107, 108; and *Nineveh and Babylon*, passim.)

We have little information as to which of these birds frequented the country in ancient times. The Assyrian artists are not happy in their delineation of the feathered tribe; and

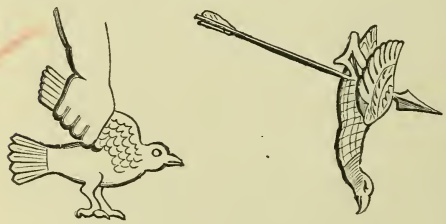
Vulture, from Nimrud.

Vulture feeding on Corpse (Koyunjik).

though several forms of birds are represented upon the sculptures of Sargon and elsewhere, there are but three which any writer has ventured to identify — the vulture, the ostrich, and the partridge. The vulture is commonly represented flying in the air, in attendance upon the march and the battle —sometimes devouring, as he flies, the entrails of one of Assyria's enemies. Occasionally he appears upon the battle-field, perched upon the bodies of the slain, and pecking at their eyes or their vitals.[8] The ostrich, which we know from Xenophon to have been a former inhabitant of the country on the left bank of the Euphrates,[9] but which has now retreated into the wilds of Arabia, occurs frequently upon cylinders, dresses, and utensils; sometimes stalk-

Ostrich, from a cylinder.

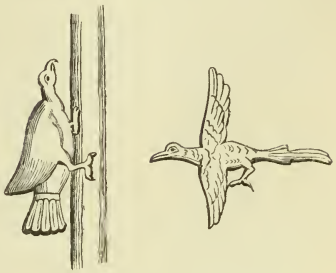
Ostrich, from Nimrud.



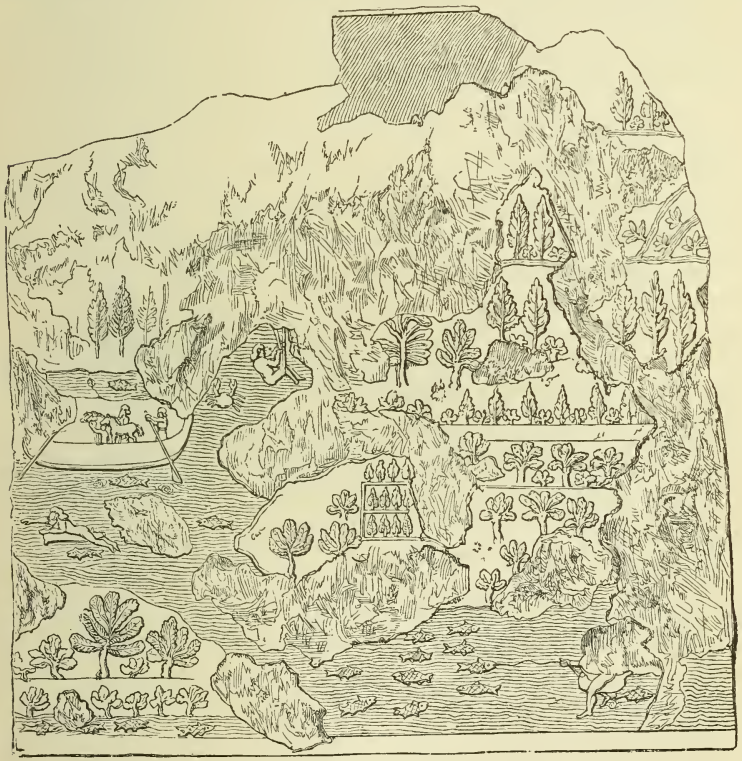
Partridges, from Khorsabad.

[8] See especially the *Monuments of Nineveh*, second series, pl. 46. [9] *Anab.* l. s. c.

ing along apparently unconcerned; sometimes hastening at full speed, as if pursued by the hunter, and, agreeably to the description of Xenophon, using its wing for a sail.[10] The partridge is still more common than either of these. He is evidently sought as food. We find him carried in the hand of sportsmen returning from the chace, or see him flying above their heads as they beat the coverts,[1] or finally observe him pierced by a suc-



Unknown birds (Khorsabad).

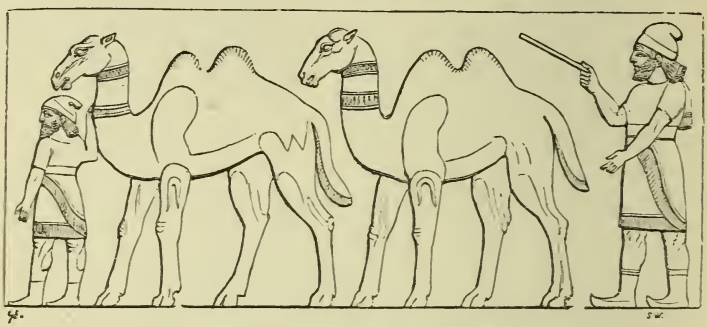


Assyrian Garden and Fish-pond, Koyunjik (after Layard).

[10] Ταῖς πτέρυξιν, ἄρασα, ὥσπερ ἱστίῳ, χρωμένη. *Anab.* i. 5, § 3.
[1] *Monuments of Nineveh*, second series, pl. 32.

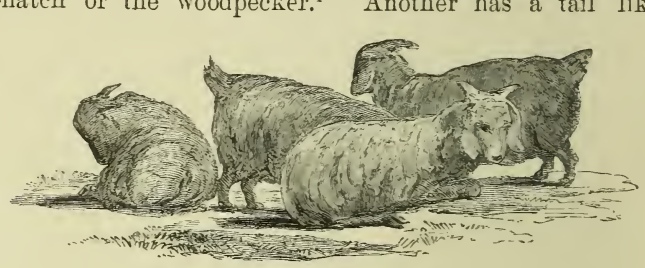
cessful shot, and in the act of falling a prey to his pursuers.[2]

The other birds represented upon the sculptures, though occasionally possessing some marked peculiarities of form or habit, have not yet been identified with any known species.



Bactrian or two-humped Camel, from Nimrud.

They are commonly represented as haunting the fir-woods, and often as perched upon the trees.[3] One appears, in a sculpture of Sargon's, in the act of climbing the stem of a tree, like the nut-hatch or the woodpecker.[4] Another has a tail like a



Mesopotamian Sheep (after Layard).

pheasant, but in other respects cannot be said to resemble that bird. The artist does not appear to aim at truth in these delineations, and it probably would be a waste of ingenuity to conjecture which species of bird he intended.

We have no direct evidence that bustards inhabited Meso-

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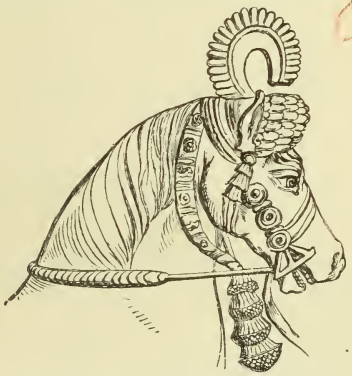
[2] Botta, *Monumens de Ninive*, vol. ii. pl. 111. [3] Ibid. Plates 109 to 112.
[4] Ibid. Pl. 110. Compare the upper woodcut, supra, p. 229.

potamia in Assyrian times; but as they have certainly been abundant in that region from the time of Xenophon[5] to our own, there can be little doubt that they existed in some parts of Assyria during the Empire. Considering their size, their peculiar appearance, and the delicacy of their flesh, it is remarkable that the Assyrian remains furnish no trace of them. Perhaps, as they are extremely shy, they may have been comparatively rare in the country when the population was numerous, and when the greater portion of the tract between the rivers was brought under cultivation.

Loading a Camel (Koyunjik).

The fish most plentiful in Assyria are the same as in Babylonia,[6] namely, barbel and carp. They abound not only in the Tigris and Euphrates, but also in the lake of Khutaniyeh, and often grow to a great size.[7] Trout are found in the streams which run down from Zagros;[8] and there may be many other sorts which have not yet been observed. The sculptures represent all the waters, whether river, pond, or marsh, as full of fish;[9] but the forms are for the most part too conventional to admit of identification.



Head of an Assyrian Horse, Koyunjik (after Layard).

The domestic animals now found in Assyria are camels, horses, asses, mules, sheep, goats, oxen, cows, and dogs. The camels

[5] *Anab.* l. s. c.
[6] See above, p. 41.
[7] Chesney, *Euphrates Exp.* vol. i. p. 108; Layard, *Nin. and Babylon*, p. 325.
[8] Rich, *Kurdistan*, vol. i. p. 143.
[9] See woodcut on p. 229.

are of three colours—white, yellow, and dark brown or black.[1] They are probably all of the same species, though commonly distinguished into camels proper, and *delouls* or dromedaries; the latter differing from the others as the English race-horse from the cart-horse. The Bactrian or two-humped camel, though known to the ancient Assyrians,[2] is not now found in the country. The horses are numerous, and of the best Arab blood. Small

Assyrian Horse, from Nimrud.

in stature, but of exquisite symmetry and wonderful powers of endurance, they are highly prized throughout the East,[3] and constitute the chief wealth of the wandering tribes who occupy the greater portion of Mesopotamia. The sheep and goats are also of good breeds, and produce wool of an excellent quality.[4] The cows and oxen cannot be commended.[5] The dogs kept are

[1] Layard, *Nineveh and Babylon*, p. 265.

[2] The Bactrian camel is, I believe, only represented on the famous Black Obelisk, where it appears among the presents sent to the king from foreign countries. (See woodcut on p. 230.)

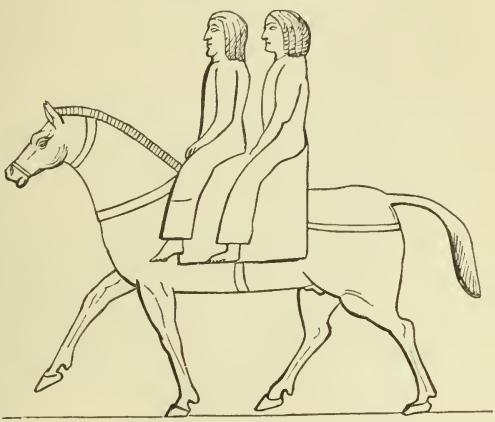
[3] The young colts fetch prices varying from 30*l.* to 150*l.* A thousand pounds is no uncommon price for a well-known mare. Mr. Layard mentions a case where a Sheikh refused for a favourite mare no less a sum than 1200*l.* (*Nin. and Bab.* p. 327.)

[4] Chesney, *Euphrates Expedition*, vol. i. p. 108. (Compare woodcut representing Mesopotamian sheep, p. 230.)

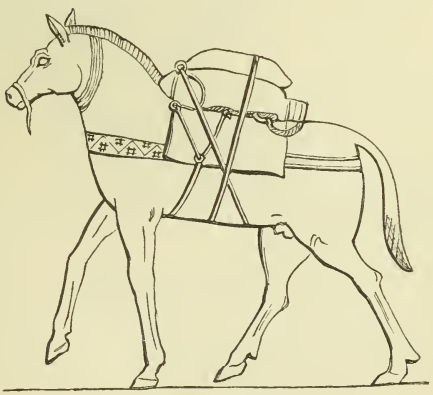
[5] Ibid. l. s. c.

chiefly greyhounds,[6] which are used to course the hare and the gazelle.

It is probable that in ancient times the animals domesticated by the Assyrians were not very different from these. The camel appears upon the monuments both as a beast of burthen and also as ridden in war, but only by the enemies of the Assyrians. The horse is used both for draught and for riding, but seems never degraded to ignoble purposes.[7] His breed is good, though he is not so finely or delicately made as the modern Arab. The head is small and well shaped, the nostrils large and high, the neck arched, but somewhat thick, the body compact, the loins strong, the legs moderately slender and sinewy. The ass is not found ; but the mule appears, sometimes ridden by women, sometimes used as a beast of burthen, sometimes employed in drawing a cart. Cows, oxen, sheep, and goats are frequent; but they are foreign rather than Assyrian, since they occur only among



Mule ridden by two women (Koyunjik).

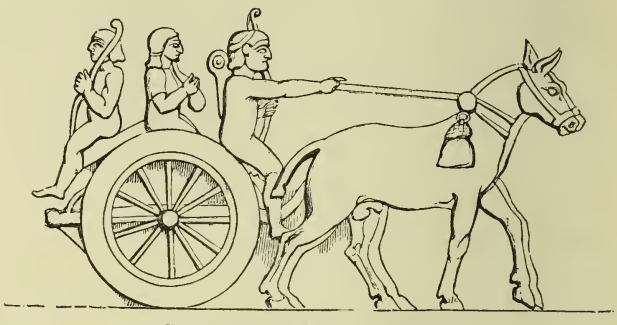


Loaded Mule (Koyunjik).

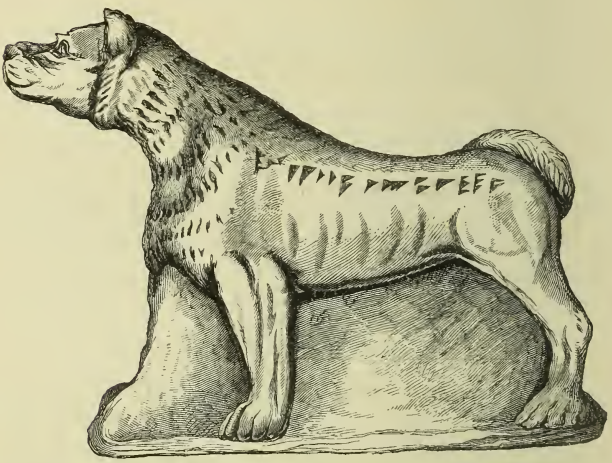
[6] Layard, *Nineveh and Babylon*, p. 246.

[7] The horse draws chariots and not carts. He is never used as a beast of burthen.

the spoil taken from conquered countries. The dog is frequent on the later sculptures; and has been found modelled in clay,



Cart drawn by Mules (Koyunjik).



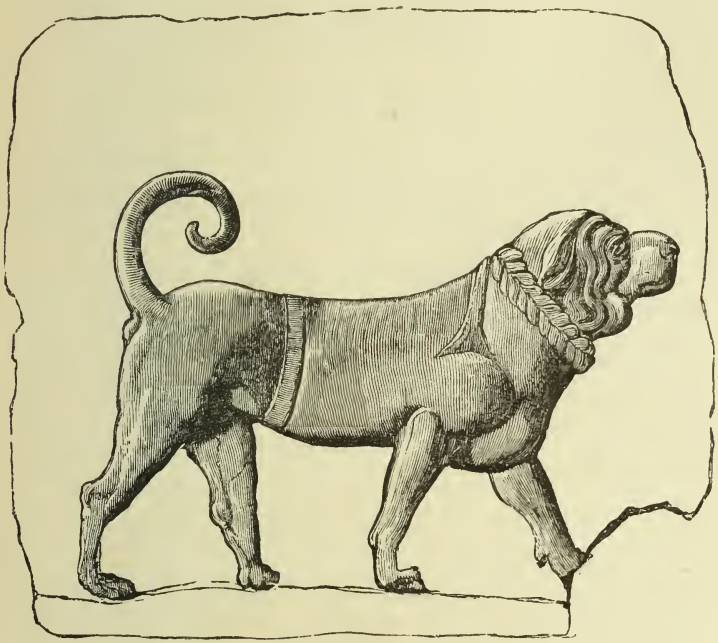
No. I. Dog modelled in clay, from the palace of Asshur-bani-pal, Koyunjik.

and also represented in relief on a clay tablet. Their character is that of a large mastiff or hound, and there is abundant evidence that they were employed in hunting.[8]

If the Assyrians domesticated any bird, it would seem to have

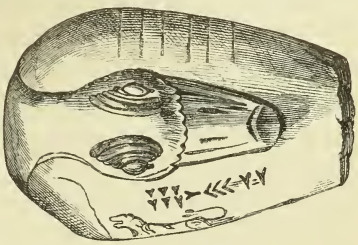
[8] Dogs are constantly represented as engaged in the chase upon the sculptures of Asshur-bani-pal (Sardanapalus). A number of his hounds were found modelled in clay at Koyunjik. They have each their name inscribed on them, which is always a term indicative of their hunting prowess. The woodcut (No. I.) on this page is taken from one of them.

been the duck. Models of the duck are common, and seem generally to have been used for weights.[9] The bird is ordinarily



No. II. Dog in relief, on a clay tablet.

represented with its head turned upon its back, the attitude of the domestic duck when asleep. The Assyrians seem to have had artificial ponds or stews, which are always represented as full of fish, but the forms are conventional, as has been already observed.[1] Considering the size to which the carp and barbel actually grow at the present day, the ancient representations are smaller than might have been expected.



Assyrian Duck (Nimrud).

[9] Layard, *Nin. and Bab.* pp. 600, 601.

[1] Supra, p. 231.

CHAPTER III.

THE PEOPLE.

"The Assyrian was a cedar in Lebanon, fair of branches, and with a shadowing shroud, and of an high stature; and his top was among the thick boughs. . . . . Nor was any tree in the garden of God like unto him in his beauty."—EZEK. xxxi. 3 and 8.

THE ethnic character of the ancient Assyrians, like that of the Chaldæans, was in former times a matter of controversy. When nothing was known of the original language of the people beyond the names of certain kings, princes, and generals, believed to have belonged to the race, it was difficult to arrive at any determinate conclusion on the subject. The ingenuity of etymologists displayed itself in suggesting derivations for the words in question,[1] which were sometimes absurd, sometimes plausible, but never more than very doubtful conjectures. No sound historical critic could be content to base a positive view on any such unstable foundation, and nothing remained but to decide the controversy on other than linguistic considerations.

Various grounds existed on which it was felt that a conclusion could be drawn. The Scriptural genealogies[2] connected Asshur with Aram, Eber, and Joktan, the allowed progenitors of the Aramæans or Syrians, the Israelites or Hebrews, and the northern or Joktanian Arabs. The languages, physical type, and moral characteristics of these races were well known; they all belonged evidently to a single family—the family known to ethnologists as the Semitic. Again, the manners and customs, especially the religious customs, of the Assyrians connected them plainly with the Syrians and Phœnicians, with whose practices they were closely allied.[3] Further, it was observed that the modern Chaldæans of Kurdistan, who regard themselves as descendants

[1] See Prichard's *Physical History of Mankind*, vol. iv. pp. 563, 564, where some of the supposed derivations are given.

[2] Gen. x. 21–31; 1 Chr. i. 17–23.

[3] See this argument urged by Dr. Prichard, *Physical Hist. of Mankind*, vol. iv. pp. 567, 568.

of the ancient inhabitants of the neighbouring Assyria, still speak a Semitic dialect.[4] These three distinct and convergent lines of testimony were sufficient to justify historians in the conclusion, which they commonly drew,[5] that the ancient Assyrians belonged to the Semitic family, and were more or less closely connected with the Syrians,[6] the (later) Babylonians, the Phœnicians, the Israelites, and the Arabs of the northern portion of the peninsula.

Recent linguistic discoveries have entirely confirmed the conclusion thus arrived at. We now possess in the engraved slabs, the clay tablets, the cylinders, and the bricks, exhumed from the ruins of the great Assyrian cities, copious documentary evidence of the character of the Assyrian language, and (so far as language is a proof) of the ethnic character of the race. It appears to be doubted by none, who have examined the evidence,[7] that the language of these records is Semitic. However imperfect the acquaintance which our best Oriental archæologists have as yet obtained with this ancient and difficult form of speech, its connexion with the Syriac, the later Babylonian, the Hebrew, and the Arabic does not seem to admit of a doubt.

Another curious confirmation of the ordinary belief is to be found in the physical characteristics of the people, as revealed to us by the sculptures. Few persons in any way familiar with these works of art can have failed to remark the striking resemblance to the Jewish physiognomy which is presented by the sculptured effigies of the Assyrians. The forehead straight but

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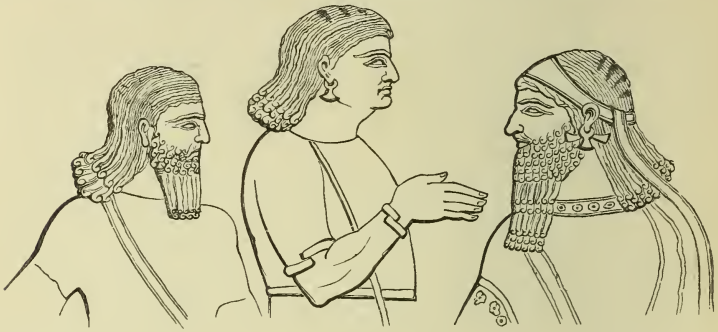
[4] The elder Niebuhr was the first to report this fact. (See his *Voyage en Arabie*, p. 285.) It was commonly disbelieved till Mr. Ainsworth confirmed the statement.

[5] See B. G. Niebuhr's *Lectures on Ancient History*, vol. i. p. 12, E. T.; Grote, *Hist. of Greece*, vol. iii. p. 403; Bunsen, *Essay on Ethnology* (1847), p. 29.

[6] Niebuhr went so far as to identify the Assyrians with the Syrians; but here he fell into a mistake. The Aramæans were probably as distinct from the Assyrians as any other Semitic race. Niebuhr was misled by the Greek fancy that the *names*, "Assyrian" and "Syrian," were really identical. (See Herod. vii. 63.) But these names had, in truth, an entirely distinct origin. Syria (more properly *Tsyria*) was the name given by the Greeks to the country about *Tsur* or Tyre, צוּר. Assyria was the correspondent term to Asshur, אַשּׁוּר,—the native, as well as the Hebrew, name of the tract upon the middle Tigris.

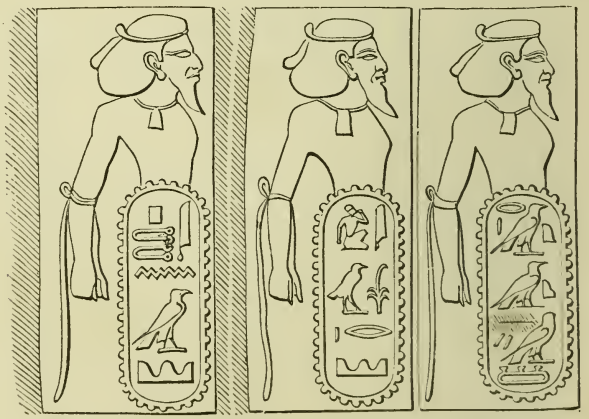
[7] See Bunsen's *Philosophy of History*, vol. iii. pp. 193–216; Max Müller, *Languages of the Seat of War*, p. 25, 2nd ed.; Oppert, *Élémens de la Grammaire Assyrienne;* &c.

not high, the full brow, the eye large and almond-shaped, the aquiline nose, a little coarse at the end, and unduly depressed, the strong, firm, mouth, with lips somewhat over thick, the well-formed chin—best seen in the representations of eunuchs—the abundant hair and ample beard, both coloured as black,—all



Assyrians (Nimrud).

these recall the chief peculiarities of the Jew, more especially as he appears in southern countries. They are less like the traits of the Arab, though to them also they bear a considerable resemblance. Chateaubriand's description of the Bedouin—"la tête ovale, le front haut et arqué, le nez *aquilin*, les yeux *grands*



Mesopotamian captives, from an Egyptian monument.

et *coupés en amandes*, le régard humide et singulièrement doux"[8] —would serve in many respects equally well for a description of the physiognomy of the Assyrians, as they appear upon the monuments. The traits, in fact, are for the most part common to the Semitic race generally, and not distinctive of any particular subdivision of it. They are seen now alike in the Arab, the Jew, and the Chaldæan of Kurdistan; while anciently they not only characterised the Assyrians, but probably belonged also to the Phœnicians, the Syrians, and other minor Semitic races. It is evident, even from the mannered and conventional sculptures of Egypt, that the physiognomy was regarded as characteristic of the western Asiatic races. Three captives on the monuments of Amenophis III.,[9] represented as belonging to the Patana (people of Bashan?), the Asuru (Assyrians), and the Karukamishi (people of Carchemish), present to us the same style of face, only slightly modified by Egyptian ideas.

While in face the Assyrians appear thus to have borne a most close resemblance to the Jews, in shape and make they are perhaps more nearly represented by their descendants, the Chaldæans of Kurdistan. While the Oriental Jew has a spare form and a weak muscular development, the Assyrian, like the modern Chaldæan,[1] is robust, broad-shouldered, and large-limbed. Nowhere have we a race represented to us monumentally of a stronger or more muscular type than the ancient Assyrian. The great brawny limbs are too large for beauty; but they indicate a physical power, which we may well believe to have belonged to this nation—the Romans of Asia—the resolute and sturdy people which succeeded in imposing its yoke upon all its neighbours.

If from physical we proceed to mental characteristics, we seem again to have in the Jewish character the best and closest analogy to the Assyrian. In the first place there is observable in each a strong and marked prominency of the religious principle. Inscriptions of Assyrian kings begin and end, almost

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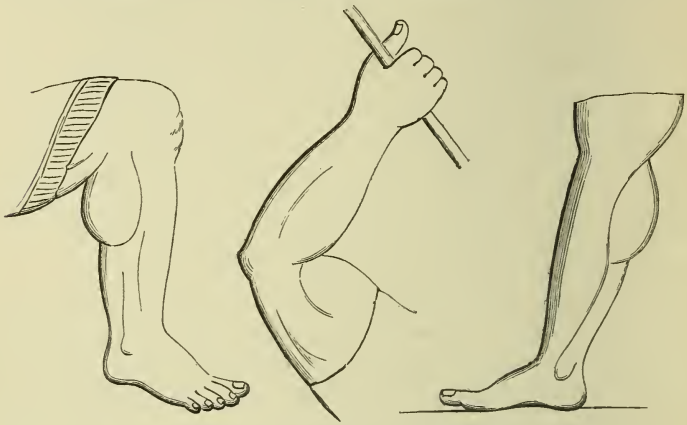
[8] *Itinéraire*, vol. i. p. 421.

[9] Lepsius, *Denkmäler*, Abtheil. iii. Bl. 88.

[1] Rich, *Residence in Kurdistan*, vol. i. p. 278.

without exception, with praises, invocations, and prayers to the principal objects of their adoration. All the monarch's successes, all his conquests and victories, and even his good fortune in the chase,[2] are ascribed continually to the protection and favour of guardian deities. Wherever he goes, he takes care to "set up the emblems of Asshur," or of "the great gods;" and forces the vanquished to do them homage. The choicest of the



Limbs of Assyrians (from the sculptures).

spoil is dedicated as a thank-offering in the temples. The temples themselves are adorned, repaired, beautified, enlarged, increased in number, by almost every monarch. The kings worship in them in person,[3] and offer sacrifices.[4] They embellish their palaces, not only with representations of their own victories and hunting expeditions, but also with religious figures—the emblems of some of the principal deities,[5] and with scenes in

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[2] See especially the Tiglath-Pileser cylinder, where such expressions as these occur:—"Under the auspices of Ninip, my guardian deity, I killed four wild bulls, strong and fierce." "Under the auspices of Ninip, 120 lions fell before me" (pp. 54–57).

[3] "As he (Sennacherib) was worshipping in the house of Nisroch his god" (2 Kings xix. 37).

[4] Tiglath-Pileser I. speaks of sacrificing as a part of the kingly office (*Inscription*, &c. p. 70).

[5] See above, pp. 132, 133, 137. According to Ammianus Marcellinus, the later inhabitants of the country were far less religious, and confined their pictured and sculptured representations to battles and hunting-pieces. ("Nec enim apud eos pingitur vel fingitur aliud præter varias [bestiarum] cædes et bella," xxiv. 6.)

which are portrayed acts of adoration. Their signets, and indeed those of the Assyrians generally,[6] have a religious character. In every way religion seems to hold a marked and prominent place in the thoughts of the people, who fight more for the honour of their gods than even of their king, and aim at extending their belief as much as their dominion.

Again, combined with this prominency of the religious principle, is a sensuousness—such as we observe in Judaism continually struggling against a higher and purer element—but which in this less favoured branch of the Semitic family reigns uncontrolled, and gives to its religion a gross, material, and even voluptuous character. The ideal and the spiritual find little favour with this practical people, which, not content with symbols, must have gods of wood and stone whereto to pray, and which in its complicated mythological system, its priestly hierarchy, its gorgeous ceremonial, and finally in its lascivious ceremonies,[7] is a counterpart to that Egypt, from which the Jew was privileged to make his escape.

The Assyrians are characterised in Scripture as "a fierce people."[8] Their victories seem to have been owing to their combining individual bravery and hardihood with a skill and proficiency in the arts of war not possessed by their more uncivilised neighbours. This bravery and hardihood were kept up, partly (like that of the Romans) by their perpetual wars, partly by the training afforded to their manly qualities by the pursuit and destruction of wild animals. The lion—the king of beasts—abounded in their country,[9] together with many other dangerous and ferocious animals. Unlike the ordinary Asiatic, who trembles before the great beasts of prey and avoids a collision by flight if possible,[1] the ancient Assyrian sought out the strongest and fiercest of the animals, provoked them to the encounter, and engaged with them in hand-to-hand combats.

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[6] Layard, *Nineveh and its Remains*, vol. ii. p. 421; *Nin. and Bab.* pp. 603–605.

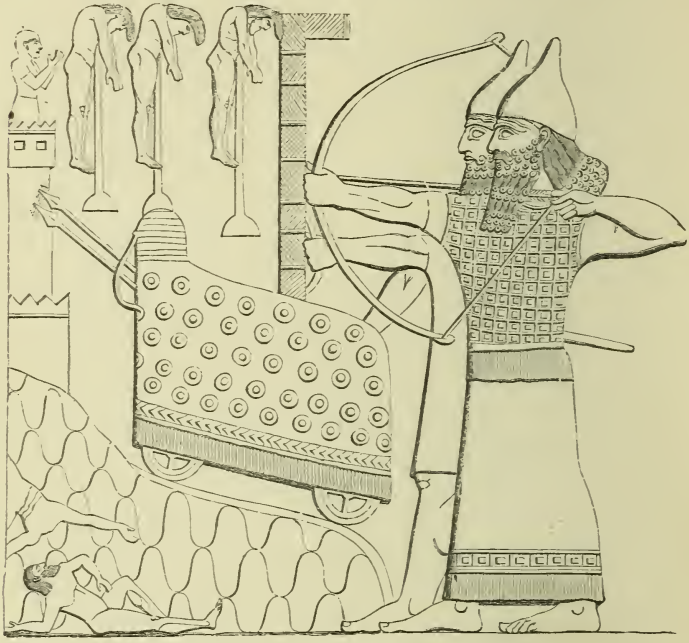
[7] See below, ch. viii.

[8] Isaiah xxxiii. 19.

[9] "Inter arundineta Mesopotamiæ fluminum et fruteta leones vagantur *innumeri*." Amm. Marc. xviii. 7. Tiglath-Pileser I. claims to have slain in all 800 lions. (*Inscription*, &c. p. 56.)

[1] Loftus, *Chaldæa and Susiana*, pp. 261, 262.

The spirit of Nimrod, the "mighty hunter before the Lord," not only animated his own people, but spread on from them to their northern neighbours; and, as far as we can judge by the monuments, prevailed even more in Assyria than in Chaldæa itself. The favourite objects of chase with the Assyrians seem to have been the lion and the wild-bull, both beasts of vast



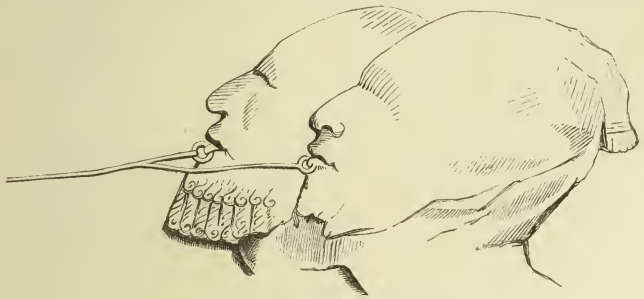
Capture of a city (Nimrud).

strength and courage, which could not be attacked without great danger to the bold assailant.

No doubt the courage of the Assyrians was tinged with ferocity. The nation was "a mighty and a strong one, which, as a tempest of hail and a destroying storm, as a flood of mighty waters overflowing, cast down to the earth with the hand."[2] Its capital might well deserve to be called "a bloody city," or

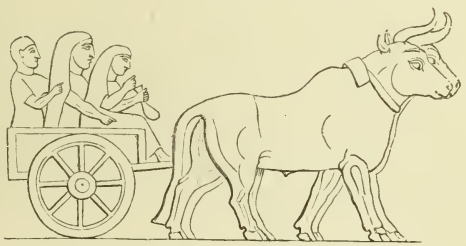
[2] Isaiah xxviii. 2.

"a city of bloods."[3] Few conquering races have been tender-hearted, or much inclined to spare; and undoubtedly carnage, ruin, and desolation followed upon the track of an Assyrian army, and raised feelings of fear and hatred among their adversaries. But we have no reason to believe that the nation



Captives of Sargon (Khorsabad).

was especially bloodthirsty or unfeeling. The mutilation of the slain—not by way of insult, but in proof of their slayer's prowess[4]—was indeed practised among them; but otherwise there is little indication of any barbarous—much less of any really cruel—usages. The Assyrian listens to the enemy who asks for quarter, he prefers making prisoners to slaying; he is very terrible in the battle and the assault, but afterwards he forgives, and spares. Of course in some cases he makes exceptions. When a town has rebelled and been subdued, he impales some of the most guilty;[5] and in



Captive Women in a cart (Nimrud).

[3] Nahum iii. 1. "Woe to the bloody city,"—or, as the margin gives it—"Woe to the city of bloods!" (הוֹי עִיר דָּמִים).

[4] Probably a reward was given for heads, as has often been the fashion with Orientals. Sometimes scribes are represented as taking account of them. (See Layard, *Nin. and its Remains*, vol. ii. p. 184.)

[5] Mr. Layard has, I think, expressed himself too strongly when he says that

two or three instances prisoners are represented[6] as led before the king by a rope fastened to a ring which passes through the under lip, while now and then one appears in the act of being flayed with a knife.[7] But, generally, captives are either released, or else transferred, without unnecessary suffering,[8] from their own country to some other portion of the empire. There seems even to be something of real tenderness in the treatment of captured women, who are never manacled, and are often allowed to ride on mules,[9] or in carts.

The worst feature in the character of the Assyrians was their treachery. "Woe to thee that spoilest, though thou wast not spoiled, and dealest treacherously, though they dealt not treacherously with thee!" is the denunciation of the evangelical prophet.[1] And in the same spirit the author of "the Burthen of Nineveh" declares that city to be "full of lies and robbery"[2] —or, more correctly, "full of lying and violence."[3] Falsehood and treachery are commonly regarded as the vices of the weak, who are driven to defend themselves against superior strength by the weapon of cunning; but they are perhaps quite as often employed by the strong, as furnishing short cuts to success, and even where the moral standard is low, as being in themselves creditable.[4] It certainly was not necessity which made the Assyrians covenant-breakers; it seems to have been in part the wantonness of power—because they "despised the cities and regarded no man;"[5] perhaps, it was in part also their im-

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on the capture of a town "an indiscriminate slaughter appears to have succeeded; and that the prisoners were either impaled or carried away as slaves." (*Nin. and its Remains*, vol. ii. p 374.) It appears, by the inscriptions, that towns were frequently spared, and that the bulk of the inhabitants were generally left in the place.

[6] Botta, *Monument de Ninive*, Pl. 83 and 118.

[7] Ibid. vol. ii. Pl. 120; Layard, *Monuments of Nineveh*, Second Series, Pl. 47. Is it quite certain that these unfortunates are alive? The Persians and Scythians sometimes flayed men after death, in order to make use of their skins (Herod. iv. 64; v. 25).

[8] Captives are occasionally represented as urged onwards by blows, like tired cattle; and they are sometimes heavily fettered. But in each case the usage is exceptional.

[9] See above, p. 233.

[1] Isaiah xxxiii. 1.

[2] Nahum iii. 1.

[3] Mr. Vance Smith renders, "full of *treachery* and violence;" which is probably the real *meaning*. But the word used is כַּחַשׁ "mendacium," not בֶּגֶד "perfidia."

[4] See Thucyd. iii. 83.

[5] Isaiah xxxiii. 8; "He hath broken the covenant, he hath despised the cities, he regardeth no man."

perfect moral perception, which may have failed to draw the proper distinction between craft and cleverness.

Another unpleasant feature in the Assyrian character—but one at which we can feel no surprise—was their pride. This is the quality which draws forth the sternest denunciations of Scripture, and is expressly declared to have called down the Divine judgments upon the race.[6] Isaiah, Ezekiel, and Zephaniah alike dwell upon it.[7] It pervades the inscriptions. Without being so rampant or offensive as the pride of some Orientals —as, for instance, the Chinese—it is of a marked and decided colour: the Assyrian feels himself infinitely superior to all the nations with whom he is brought into contact; he alone enjoys the favour of the gods; he alone is either truly wise or truly valiant; the armies of his enemies are driven like chaff before him; he sweeps them away, like heaps of stubble; either they fear to fight, or they are at once defeated; he carries his victorious arms just as far as it pleases him, and never under any circumstances admits that he has suffered a reverse. The only merit that he allows to foreigners is some skill in the mechanical and mimetic arts, and his acknowledgment of this is tacit rather than express, being chiefly known from the recorded fact that he employs foreign artists to ornament his edifices.

According to the notions which the Greeks derived from Ctesias,[8] and passed on to the Romans, and through them to the moderns generally, the greatest defect in the Assyrian character—the besetting sin of their leading men—was luxuriousness of living and sensuality. From Ninyas to Sardanapalus—from the commencement to the close of the empire—a line of voluptuaries, according to Ctesias and his followers, held possession of the throne; and the principle was established from the first, that happiness consisted in freedom from all

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[6] Ezek. xxxi. 10, 11; "*Because* thou hast lifted up thyself in height, and he hath shot up his top among the thick boughs, and his heart is lifted up in his height; I have *therefore* delivered him into the hand of the mighty one of the heathen; he shall surely deal with him: I have driven him out for his wickedness."

[7] Isaiah x. 7–14, xxxvii. 24–28; Ezek. xxxi. 10; Zeph. ii. 15.

[8] Some idea of notable luxuriousness attaching to the Assyrians is, perhaps, earlier than Ctesias. (See Aristoph. *Aves*, 958, ed. Bothe.) Did it come from the Ἀσσύριοι λόγοι of Herodotus?

cares or troubles, and unchecked indulgence in every species of sensual pleasure.[9] This account, intrinsically suspicious, is now directly contradicted by the authentic records which we possess of the warlike character and manly pursuits of so many of the kings. It probably, however, contains a germ of truth. In a flourishing kingdom, like Assyria, luxury must have gradually advanced; and when the empire fell under the combined attack of its two most powerful neighbours, no doubt it had lost much of its pristine vigour. The monuments lend some support to the view that luxury was among the causes which produced the fall of Assyria; although it may be questioned whether, even to the last, the predominant spirit was not warlike and manly, or even fierce and violent. Among the many denunciations of Assyria in Scripture, there is only one which can even be thought to point to luxury as a cause of her downfall; and that is a passage of very doubtful interpretation.[1] In general it is her violence, her treachery, and her pride that are denounced. When Nineveh repented in the time of Jonah, it was by each man "turning from his evil way and from the *violence* which was in their hands."[2] When Nahum announces the final destruction, it is on "the *bloody* city, full of lies and *robbery*." In the emblematic language of prophecy, the *lion* is taken as the fittest among animals to symbolise Assyria, even at this late period of her history.[4] She is still "the lion that did tear in pieces enough for his whelps, and strangled for his lioness, and filled his holes with prey, and his dens with ravin." The favourite national emblem, if it may be so called,[5] is accepted as the true type of the people; and blood, ravin, and robbery are their characteristics in the mind of the Hebrew prophet.

In mental power the Assyrians certainly deserve to be considered as among the foremost of the Asiatic races. They

[9] See Diod. Sic. ii. 21, § 2.

[1] Nahum iii. 4; "Because of the multitude of the whoredoms of the well-favoured harlot, the mistress of witchcrafts, that selleth nations through her whoredoms, and families through her witchcrafts, Behold, I am against thee, saith the Lord." Idolatry is probably the "whoredom" here intended.

[2] Jonah iii. 8.

[3] Nahum iii. 1.

[4] Ibid. ii. 11–13.

[5] The frequent occurrence of the lion on the monuments, either in the natural form or with a human head, seems to justify this expression. It must be admitted, however, that the standards bear a different emblem. See below, ch. vii.

had not perhaps so much originality as the Chaldæans, from whom they appear to have derived the greater part of their civilisation; but in many respects it is clear that they surpassed their instructors, and introduced improvements which gave a greatly increased value and almost a new character to arts previously discovered. The genius of the people will best be seen from the accounts, hereafter to be given, of their language, their arts, and their system of government. If it must be allowed that these have all a certain smack of rudeness and primitive simplicity, still they are advances upon aught that had previously existed—not only in Mesopotamia—but in the world. Fully to appreciate the Assyrians we should compare them with the much-lauded Egyptians, who in all important points are very decidedly their inferiors. The spirit and progressive character of their art offers the strongest contrast to the stiff, lifeless, and unchanging conventionalism of the dwellers on the Nile. Their language and alphabet are confessedly in advance of the Egyptian.[6] Their religion is more earnest and less degraded. In courage and military genius their superiority is very striking; for the Egyptians are essentially an unwarlike people. The one point of advantage to which Egypt may fairly lay claim is the grandeur and durability of her architecture. The Assyrian palaces, magnificent as they undoubtedly were, must yield the palm to the vast structures of Egyptian Thebes.[7] No nation, not even Rome, has equalled Egypt in the size and solemn grandeur of its buildings. But, except in this one respect, the great African kingdom must be regarded as inferior to her Asiatic rival—which was indeed "a cedar in Lebanon, exalted above *all* the trees of the field —fair in greatness and in the length of his branches—so that all the trees that were in the garden of God envied him, and not one was like unto him in his beauty."[8]

[6] See Bunsen's *Philosophy of History*, vol. iii. p. 192; *Egypt*, vol. iv. pp. 144, 638, &c.

[7] Denon says of Thebes, with equal force and truth: — "On est fatigué d'écrire, on est fatigué de lire, on est épouvanté de la pensée d'une telle conception; on ne peut croire, même après l'avoir vu, à la réalité de l'existence de tant de constructions réunies sur un même point, à leurs dimensions, à la constance obstinée qu'a exigée leur fabrication, aux dépenses incalculables de tant de sumptuosité." *Égypte*, vol. ii. p. 226.

[8] Ezek. xxxi. 3–9.

CHAPTER IV.

THE CAPITAL.

"Fuit et Ninus, imposita Tigri, ad solis occasum spectans, quondam clarissima."—PLIN. *H. N.* vi. 13.

THE site of the great capital of Assyria had generally been regarded as fixed with sufficient certainty to the tract immediately opposite Mosul, alike by local tradition and by the statements of ancient writers,[1] when the discovery by modern travellers of architectural remains of great magnificence at some considerable distance from this position, threw a doubt upon the generally received belief, and made the true situation of the ancient Nineveh once more a matter of controversy. When the noble sculptures and vast palaces of Nimrud were first uncovered, it was natural to suppose that they marked the real site; for it seemed unlikely that any mere provincial city should have been adorned by a long series of monarchs with buildings at once on so grand a scale and so richly ornamented. A passage of Strabo, and another of Ptolemy,[2] were thought to lend confirmation to this theory, which placed the Assyrian capital nearly at the junction of the Upper Zab with the Tigris; and for a while the old opinion was displaced, and the name of Nineveh was attached very generally in this country to the ruins at Nimrud.

Shortly afterwards a rival claimant started up in the regions further to the north. Excavations carried on at the village of

[1] The local tradition is strikingly marked by the Mahometan belief that on the smaller of the two mounds opposite Mosul is "the tomb of Jonah:" whence the name *Nebbi-Yunus*. The most important of the ancient authorities is Xenophon (*Anab.* iii. 4, §§ 10–12).

[2] See Layard's *Nineveh and its Remains*, vol. ii. p. 242. Neither passage is correctly represented by Mr. Layard. Ptolemy distinctly places Nineveh—not on the Lycus, as Mr. Layard says—but on the Tigris (*Geograph.* vi. 1); and Strabo, though he does not actually do the same, certainly does not anywhere say that it was "near the junction of the two rivers." He says that the Lycus divided Aturia from Arbelitis, and that Nineveh was situated in the middle of the former district (xvi. 1, § 3).

Khorsabad showed, that a magnificent palace and a considerable town had existed in Assyrian times at that site. In spite of the obvious objection that the Khorsabad ruins lay at the distance of fifteen miles from the Tigris, which according to every writer of weight[3] anciently washed the walls of Nineveh, it was assumed by the excavator that the discovery of the capital had been reserved for himself, and the splendid work representing the Khorsabad bas-reliefs and inscriptions, which was published in France under the title of 'Monument de Ninive,' caused the reception of M. Botta's theory in many parts of the Continent.

After a while an attempt was made to reconcile the rival claims by a theory, the grandeur of which gained it acceptance, despite its improbability. It was suggested that the various ruins, which had hitherto disputed the name, were in fact all included within the circuit of the ancient Nineveh; which was described as a rectangle, or oblong square, eighteen miles long and twelve broad. The remains at Khorsabad, Koyunjik, Nimrud, and Keremles marked the four corners of this vast quadrangle,[4] which contained an area of 216 square miles—about ten times that of London! In confirmation of this view was urged, first, the description in Diodorus,[5] derived probably from Ctesias, which corresponded (it was said) both with the proportions and with the actual distances; and next, the statements contained in the book of Jonah,[6] which (it was argued) implied a city of some such dimensions. The parallel of Babylon, according to the description given by Herodotus,[7] might fairly have been cited as a further argument; since it might have seemed reasonable to suppose that there was no great difference of size between the chief cities of the two kindred empires.

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[3] Herod. i. 193; Nic. Dam. Fr. 9; Arrian. *Hist. Ind.* 42; Plin. *H. N.* vi. 13; Eustath. ad Dionys. Perieg. 988; &c. It is perhaps by a slip of the pen that Diodorus places Nineveh on the Euphrates (ii. 3).

[4] See Layard's *Nineveh and its Remains*, vol. ii. p. 247.

[5] Diodorus (l. s. c.) made Nineveh an oblong square 140 stades (18¼ miles) long, and 90 stades (11¾ miles) broad. Nimrud is eighteen miles from Koyunjik, and about twelve from Keremles. (Layard, l. s. c.)

[6] Ch. iii. ver. 3, and ch. iv. ver. 11.

[7] Book i. ch. 178.

Attractive, however, as this theory is from its grandeur, and harmonious as it must be allowed to be with the reports of the Greeks, we have nevertheless to reject it on two grounds, the one historical and the other topographical. The ruins of Khorsabad, Keremles, Nimrud, and Koyunjik bear on their bricks distinct local titles; and these titles are found attaching to distinct cities in the historical inscriptions. Nimrud, as already observed, is Calah; and Khorsabad is Dur-Sargina, or "the city of Sargon." Keremles has also its own appellation, Dur-* * *, "the city of the God [illegible]." Now the Assyrian writers do not consider these places to be parts of Nineveh, but speak of them as distinct and separate cities. Calah for a long time is the capital, while Nineveh is mentioned as a provincial town. Dur-Sargina is built by Sargon not at Nineveh, but "*near to* Nineveh." Scripture, it must be remembered, similarly distinguishes Calah as a place separate from Nineveh and so far from it that there was room for "a great city" between them.[8] And the geographers, while they give the name of Aturia or Assyria Proper to the country about the one town,[9] call the region which surrounds the other by a distinct name, Calachené.[1] Again, when the country is closely examined, it is found, not only that there are no signs of any continuous town over the space included within the four sites of Nimrud, Keremles, Khorsabad, and Koyunjik, nor any remains of walls or ditches connecting them,[2] but that the four sites themselves are as carefully fortified on what, by the theory we are examining, would be the inside of the city as in other directions.[3] It perhaps need scarcely be added, unless to meet the argument drawn from Diodorus, that the four sites in

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[8] Gen. x. 11, 12. We must understand the expression "a great city," as qualified by the circumstances under which it is used—a great city according to the size of cities in the primeval times. The city in question may probably have occupied the site of the ruins at Selamiyeh.

[9] Strab. xvi. 1, § 1; Arrian. *Exp. Alex.* iii. 7; Plin. *H. N.* v. 12.

[1] Supra, p. 194.

[2] See the careful surveys of Capt. Jones, published by the Royal Asiatic Society. (*Journal*, vol. xv.)

[3] See the plans of the ruins at Nimrud and Koyunjik (pp. 200 and 253). Koyunjik, according to the hypothesis, would occupy the north-west angle of the town, and its southern and eastern sides would thus be within the town; but the *chief* defences are those on the east.

question are not so placed as to form the "oblong square" of his description,[4] but mark the angles of a rhombus very much slanted from the perpendicular.

The argument derived from the book of Jonah deserves more attention than that which rests upon the authority of Diodorus and Ctesias. Unlike Ctesias, Jonah saw Nineveh while it still stood; and though the writer of the prophetical book may not have been Jonah himself,[5] he probably lived not very many years later.[6] Thus his evidence is that of a contemporary, though (it may be) not that of an eye-witness; and, even apart from the inspiration which guided his pen, he is entitled to be heard with the utmost respect. Now the statements of this writer, which have a bearing on the size of Nineveh, are two. He tells us, in one place, that it was "an exceeding great city, of three days' journey;"[7] in another, that "in it were more than 120,000 persons who could not discern between their right hand and their left."[8] These passages are clearly intended to describe a city of a size unusual at the time; but both of them are to such an extent vague and indistinct, that it is impossible to draw from either separately, or even from the two combined, an exact definite notion. "A city of three days' journey" may be one which it requires three days to traverse from end to end, or one which is three days' journey in circumference, or, lastly, one which cannot be thoroughly visited and explored by a prophet commissioned to warn the inhabitants of a coming danger in less than three days' time. Persons not able to distinguish their right hand from their left may (if taken literally) mean children, and 120,000 such persons may therefore indicate a total population of 600,000; or, the phrase may perhaps

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[4] Diod. Sic. ii. 3.

[5] It has been remarked that "the writer of the book of Jonah nowhere identifies himself with the prophet." (Vance Smith, *Prophecies on Nineveh*, p. 252.) "On the contrary, he rather carefully keeps himself distinct, speaking of Jonah always in the third person, and *not suggesting, by a single word or implication*, that he ever thought of being regarded as, at the same time, both writer and subject of the narrative." All this is undoubtedly true, but it does not establish the negative.

[6] The position of the book in the Hebrew Canon, between Amos and Micah, shows that its date was regarded as falling between Uzziah (B.C. 808) and Hezekiah (B.C. 697). Nineveh was not destroyed till, at any rate, B.C. 625.

[7] Jonah iii. 3.

[8] Ibid. iv. 11.

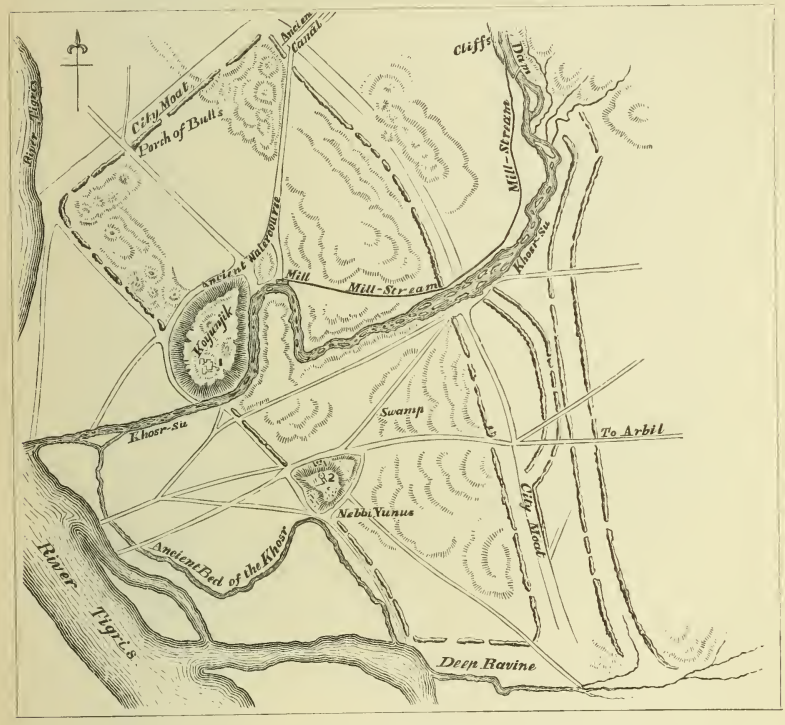
with greater probability be understood of moral ignorance, and the intention would in that case be to designate by it all the inhabitants. If Nineveh was in Jonah's time a city containing a population of 120,000, it would sufficiently deserve the title of "an exceeding great city;" and the prophet might well be occupied for three days in traversing its squares and streets. We shall find hereafter that the ruins opposite Mosul have an extent more than equal to the accommodation of this number of persons.

The weight of the argument from the supposed parallel case of Babylon must depend on the degree of confidence which can be reposed in the statement made by Herodotus, and on the opinion which is ultimately formed with regard to the real size of that capital. It would be improper to anticipate here the conclusions, which may be arrived at hereafter, concerning the real dimensions of "Babylon the Great;" but it may be observed that grave doubts are entertained in many quarters as to the ancient statements on the subject, and that the ruins do not cover much more than one twenty-fifth of the space which Herodotus assigns to the city.

We may, therefore, without much hesitation, set aside the theory which would ascribe to the ancient Nineveh dimensions nine or ten times greater than those of London, and proceed to a description of the group of ruins believed by the best judges to mark the true site.

The ruins opposite Mosul consist of two principal mounds, known respectively as Nebbi-Yunus and Koyunjik. The Koyunjik mound, which lies to the north-west of the other, at the distance of 900 yards, or a little more than half a mile, is very much the more considerable of the two. Its shape is an irregular oval, elongated to a point towards the north-east, in the line of its greater axis. The surface is nearly flat; the sides slope at a steep angle, and are furrowed with numerous ravines, worn in the soft material by the rains of some thirty centuries. The greatest height of the mound above the plain is towards the south-eastern extremity, where it overhangs the small stream of the Khosr; the elevation in this part being about

ninety-five feet. The area covered by the mound is estimated at a hundred acres, and the entire mass is said to contain 14,500,000 tons of earth. The labour of a man would scarcely excavate and place in position more than 120 tons of earth in a year; it would require therefore the united exertions of 10,000 men for twelve years, or 20,000 men for six years,



Ruins of Nineveh.

1. Palace of Sennacherib. 2. Supposed Tomb of Jonah.

to complete the structure.[1] On this artificial eminence were raised in ancient times the palaces and temples of the Assyrian monarchs, which are now imbedded in the *débris* of their own ruins.

The mound of Nebbi-Yunus is at its base nearly triangular.

[1] See the *Journal of the Asiatic Society*, vol. xv. p. 326, note [2].

It covers an area of about forty acres. It is loftier, and its sides are more precipitous, than Koyunjik, especially on the west, where it abutted upon the wall of the city. The surface is mostly flat, but is divided about the middle by a deep ravine, running nearly from north to south, and separating the mound into an eastern and a western portion. The so-called tomb of Jonah is conspicuous on the north edge of the western portion of the mound, and about it are grouped the cottages of the Kurds and Turcomans to whom the site of the ancient Nineveh belongs. The eastern portion of the mound forms a burial-ground, to which the bodies of Mahometans are brought from considerable distances. The mass of earth is calculated at six and a half millions of tons; so that its erection would have given full employment to 10,000 men for the space of five years and a half.

These two vast mounds—the platforms on which palaces and temples were raised—are both in the same line, and abutted, both of them, on the western wall of the city. Their position in that wall is thought to have been determined, not by chance, but by design; since they break the western face of the city into three nearly equal portions.[2] The entire length of this side of Nineveh was 13,600 feet, or somewhat more than two and a half miles. Anciently it seems to have immediately overhung the Tigris, which has now moved off to the west, leaving a plain nearly a mile in width between its eastern edge and the old rampart of the city. This rampart followed, apparently, the natural course of the river-bank; and hence, while on the whole it is tolerably straight, in the most southern of the three portions it exhibits a gentle curve, where the river evidently made a sweep, altering its course from south-east nearly to south.

The western wall at its northern extremity approaches the present course of the Tigris, and is here joined, exactly at right angles, by the northern, or rather the north-western, rampart,

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[2] Capt. Jones notes that from the N.W. angle of the city to the *centre* of the Koyunjik mound, from that to the *centre* of the Nebbi-Yunus mound, and from the centre of the Nebbi-Yunus mound to the S.W. angle of the city, are exactly equal distances. (*Journal of Asiatic Society*, vol. xv. p. 325.)

which runs in a perfectly straight line to the north-eastern angle of the city, and is said to measure exactly 7000 feet.[3] This wall is again divided, like the western, but with even more preciseness, into three equal portions. Commencing at the north-eastern angle, one-third of it is carried along comparatively high ground, after which for the remaining two-thirds of its course it falls by a gentle decline towards the

Khosr-Su and Mound of Nebbi-Yunus (after Layard).

Tigris. Exactly midway in this slope the rampart is broken by a road, adjoining which is a remarkable mound, covering one of the chief gates of the city.[4]

At its other extremity the western wall forms a very obtuse angle with the southern, which impends over a deep ravine formed by a winter torrent, and runs in a straight line for about

[3] *Journal of Asiatic Society*, vol. xv. p. 322.

[4] Ibid. p. 323.

1000 yards, when it meets the eastern wall, with which it forms a slightly acute angle.

It remains to describe the eastern wall, which is the longest, and the least regular of the four. This barrier skirts the edge of a ridge of conglomerate rock, which here rises somewhat above the level of the plain, and presents a slightly convex sweep to the north-east. At first it runs nearly parallel to the western, and at right angles to the northern wall; but, after pursuing this course for about three quarters of a mile, it is forced by the natural convexity of the ridge to retire a little, and curving gently inwards it takes a direction much more southerly than at first, thus drawing continually nearer to the western wall, whose course is almost exactly south-east. The entire length of this wall is 16,000 feet, or above three miles. It is divided into two portions, whereof the southern is somewhat the longer, by the stream of the Khosr-Su; which, coming from the north-west, finds its way through the ruins of the city, and then runs on across the low plain to the Tigris.

The enceinte of Nineveh forms thus an irregular trapezium, or a "triangle with its apex abruptly cut off to the south."[5] The breadth, even in the broadest part — that towards the north—is very disproportionate to the length, standing to it as four to nine, or as 1 to 2·25. The town is thus of an oblong shape, and so far Diodorus truly described it;[6] though his dimensions greatly exceed the truth. The circuit of the walls is somewhat less than eight miles, instead of being more than *fifty;* and the area which they include is 1800 English acres, instead of being 112,000!

It is reckoned that in a populous Oriental town we may compute the inhabitants at nearly, if not quite, a hundred per acre. This allows a considerable space for streets, open squares, and gardens; since it assigns but one individual to every space of fifty square yards. According to such a mode of reckoning, the population of ancient Nineveh, within the enceinte here described, may be estimated at 175,000 souls. No city of Western Asia is at the present day so populous.

[5] *Journal of the Asiatic Society*, vol. xv. p. 324. [6] Diod. Sic. ii. 3, § 2.

In the above description of the ramparts surrounding Nineveh, no account has been given of their width or height. According to Diodorus the wall wherewith Ninus surrounded his capital was 100 feet high, and so broad that three chariots might drive side by side along the top. Xenophon, who passed close to the ruins on his retreat with the Ten Thousand, calls the height 150 feet, and the width 50 feet.[7] The actual greatest height at present seems to be 46 feet;[8] but the *débris* at the foot of the walls are so great, and the crumbled character of the walls themselves is so evident, that the chief modern explorer inclines to regard the computation of Diodorus as probably no exaggeration of the truth.[9] The width of the walls, in their crumbled condition, is from 100 to 200 feet.

The mode in which the walls were constructed seems to have been the following. Up to a certain height—fifty feet, according to Xenophon[1]—they were composed of neatly-hewn blocks of a fossiliferous limestone, smoothed and polished on the outside.[2] Above this, the material used was sun-dried brick. The stone masonry was certainly ornamented along its top by a continuous series of battlements or gradines in the same material;[3]

and it is not unlikely that a similar ornamentation crowned the upper brick structure.[4] The wall was pierced at irregular

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[7] *Anab.* iii. 4, § 10. I assume that the Mespila of Xenophon is identical with the ruins opposite Mosul. There does not seem to be any reasonable doubt of this. (See Ainsworth, *Travels in the Track of the Ten Thousand*, p. 140; *Journal of Asiatic Society*, vol. xv. p. 332.)

[8] *Journal of Asiatic Society*, vol. xv. p. 322.

[9] Layard, *Nineveh and Babylon*, p. 660. "The remains still existing of these fortifications almost confirm the statement of Diodorus Siculus, that the walls were a hundred feet high," &c.

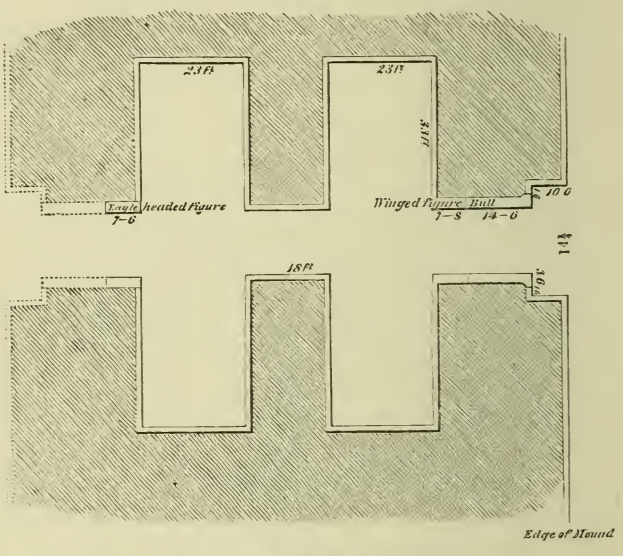
[1] *Anab.* iii. 4, § 10. The excavations have not yet tested this statement of Xenophon's; but, as his estimate of twenty feet is *exactly* correct for the stone basement of the walls of Nimrud (Larissa), we may fairly assume that he probably did not much miscalculate here. (Cf. *Anab.* iii. 4, § 7, with Layard's *Nineveh and Babylon*, pp. 123, 125.)

[2] Λίθου ξεστοῦ κογχυλιάτου. (*Anab.* iii. 4, § 10.) Mr. Ainsworth remarks that this fossiliferous stone is the common building material at Mosul, but "does not occur far to the north or to the south, being succeeded by wastes of gypsum." (*Travels in the Track of the Ten Thousand*, p. 140.)

[3] Layard. *Nin. and Bab.*, p. 658.

[4] Ibid., note.

intervals by gates, above which rose lofty towers; while towers, probably of lesser elevation, occurred also in the portions of the wall intervening between one gate and another. A gate in the north-western rampart has been cleared by means of excavation, the form and construction of which will best appear from the annexed ground-plan. It seems to have consisted of three gateways, whereof the inner and outer were ornamented with colossal human-headed bulls and other figures, while the central



Gate in the North Wall, Nineveh.

one was merely panelled with slabs of alabaster. Between the gateways were two large chambers, 70 feet long by 23 feet wide, which were thus capable of containing a considerable body of soldiers. The chambers and gateways are supposed to have been arched over, like the castles' gates on the bas-reliefs. The gates themselves have wholly disappeared; but the *débris* which filled both the chambers and the passages contained so much charcoal that it is thought they must have been made, not of bronze, like the gates of Babylon,[5] but of wood. The

[5] Herod. i. 179.

ground within the gateway was paved with large slabs of limestone, still bearing the marks of chariot wheels.[6]

The castellated rampart which thus surrounded and guarded Nineveh did not constitute by any means its sole defence. Outside the stone basement wall lay on every side a water barrier, consisting on the west and south of natural river courses; on the north and east, of artificial channels into which water was conducted from the Khosr-su. The northern and eastern walls were skirted along their whole length by a broad and deep moat, into which the Khosr-su was made to flow by occupying its natural bed with a strong dam, carried across it in the line of the eastern wall, and at the point where the stream now enters the enclosure. On meeting this obstruction, of which there are still some remains, the waters divided, and while part flowed to the south-east, and reached the Tigris by the ravine immediately to the south of the city, which is a natural watercourse, part turned at an acute angle to the north-west, and, washing the remainder of the eastern and the whole of the northern wall, gained the Tigris at the north-west angle of the city, where a second dam kept it at a sufficient height. Moreover, on the eastern face, which appears to have been regarded as the weakest, a series of outworks were erected for the further defence of the city. North of the Khosr, between the city wall and that river, which there runs parallel to the wall, and forms a sort of second or outer moat, there are traces of a detached fort of considerable size, which must have greatly strengthened the defences in that quarter. South and south-east of the Khosr, the works are still more elaborate. In the first place, from a point where the Khosr leaves the hills and debouches upon comparatively low ground, a deep ditch, 200 feet broad, was carried through compact silicious conglomerate for upwards of two miles, till it joined the ravine which formed the natural protection of the city upon the south. On either side of this ditch, which could be readily supplied with water from the Khosr at its northern extremity, was built a broad and lofty wall; the eastern one, which forms the outermost of

[6] Layard, *Nin. and Bab.* pp. 120–123.

Outer defences of Nineveh, in their present condition (after Layard).

the defences, rises even now a hundred feet above the bottom of the ditch on which it adjoins. Further, between this outer barrier and the city moat was interposed a species of demi-lune, guarded by a double wall and a broad ditch, and connected (as is thought) by a covered way with Nineveh itself.[7] Thus the city was protected on this, its most vulnerable side, towards the centre by five walls and three broad and deep moats; towards the north, by a wall, a moat, the Khosr, and a strong outpost; towards the south, by two moats and three lines of rampart. The breadth of the whole fortification on this side is 2200 feet, or not far from half a mile.[8]

Such was the site, and such were the defences, of the capital of Assyria. Of its internal arrangements but little can be said at present, since no general examination of the space within the ramparts has been as yet made, and no ancient account of the interior has come down to us. We can only see that the side of the city which was most fashionable was the western, which immediately overhung the Tigris; since here were the palaces of the kings, and here seem also to have been the dwellings of the richer citizens; at least, it is on this side, in the space intervening between Koyunjik and the northern rampart, that the only very evident remains of edifices—besides the great mounds of Koyunjik and Nebbi-Yunus—are found.[9] The river was no doubt the main attraction; but perhaps the western side was also considered the most secure, as lying furthest from the quarter whence alone the inhabitants expected to be attacked, namely, the east. It is impossible at present to give any account of the character of the houses or the direction of the streets. Perhaps the time may not be far distant when more systematic and continuous efforts will be made by the enterprise of Europe to obtain full knowledge of all the remains which still lie buried at this interesting site. No such discoveries are indeed to be expected as those which have recently startled the world; but patient explorers would still be sure of an ample reward, were they to glean after Layard in the field from which he swept so magnificent a harvest.

[7] *Journal of Asiatic Society*, vol. xv. p. 322. [8] Layard, *Nin. and Bab.* p. 660, note.
[9] See the plan (supra, p. 253); and comp. the *Journ. of Asiatic Society*, vol. xv. p. 323.

CHAPTER V.

LANGUAGE AND WRITING.

"Γράμματα Ἀσσύρια."—HEROD. iv. 87.

THERE has never been much difference of opinion among the learned with regard to the language spoken by the Assyrians. As the Biblical genealogy connected Asshur with Eber and Aram,[1] while the Greeks plainly regarded the Syrians, Assyrians, and Babylonians as a single race,[2] it was always supposed that the people thus associated must have possessed a tongue allied, more or less closely, to the Hebrew, the Syriac, and the Chaldee. These tongues were known to be dialectic varieties of a single form of speech—the Semitic; and it was consequently the general belief, before any Assyrian inscriptions had been disinterred, that the Assyrian language was of this type, either a sister tongue to the three above mentioned, or else identical with some one of them. The only difficulty in the way of this theory was the supposed Medo-Persic or Arian character of a certain number of Assyrian royal names; but this difficulty was thought to be sufficiently met by a suggestion that the ruling tribe might have been of Median descent, and have maintained its old national appellatives, while the mass of the population belonged to a different race.[3] Recent discoveries have shown that this last suggestion was needless, as the difficulty which it was intended to meet does not exist. The Assyrian names, which either *history* or the monuments have handed down to us, are Semitic, and not Arian. It is only among the fabulous accounts of the Assyrian Empire put forth by Ctesias that Arian

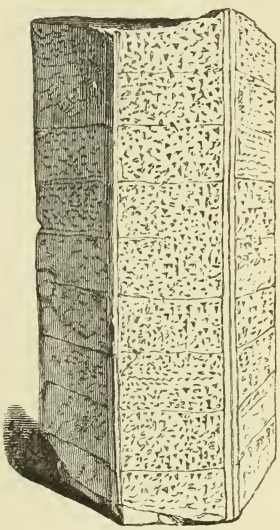
[1] Gen. x. 21–25.

[2] See Herod. vii. 63, and 140; Æsch. *Pers.* 86; Xen. *Cyrop.* v. 4, § 51, &c.; Scylax, *Peripl.* p. 80; Dionys. Perieg. 772; Strab. xvi. 1, § 2; Arrian, Fr. 48; Plin. *H. N.* v. 12; Mela, i. 11, for the confusion of Assyrians with Syrians. For the close connexion and almost identification of the Babylonians with the Assyrians, see Herod. i. 106, 178; iii. 92; Strab. l. s. c.; &c.

[3] Prichard, *Physical History of Mankind*, vol. iv. p. 568.

names, such as Xerxes, Arius, Armamithres, Mithræus, &c., are to be found.

Together with the true names of the Assyrian kings, the mounds of Mesopotamia have yielded up a mass of documents in the Assyrian language, from which it is possible that we may one day acquire as full a knowledge of its structure and vocabulary as we possess at present of Greek or Latin. These documents have confirmed the previous belief that the tongue is Semitic. They consist, in the first place, of long inscriptions upon the slabs of stone with which the walls of palaces were panelled, sometimes occupying the stone to the exclusion of any sculpture, sometimes carried across the dress of figures, always carefully cut and generally in good preservation.[4] Next in importance to these memorials are the hollow cylinders, or more strictly speaking, hexagonal or octagonal prisms, made in extremely fine and thin terracotta,[5] which the Assyrian kings used to deposit at the corners of temples, inscribed with an account of their chief acts and with numerous religious invocations. These cylinders vary from a foot and a half to three feet in height, and are covered closely with a small writing, which it often requires a good magnifying glass to decipher. A cylinder of Tiglath-Pileser I. (about B.C. 1180) contains thirty lines in a space of six inches, or five lines to an inch, which is nearly as close as the type of the present volume. This degree of closeness is exceeded on a cylinder of Asshur-bani-pal's (about B.C. 660), where the lines are six to the inch, or as near together as the type of the Edinburgh Review. If the complexity of the Assyrian characters be taken into account, and if it be remem-

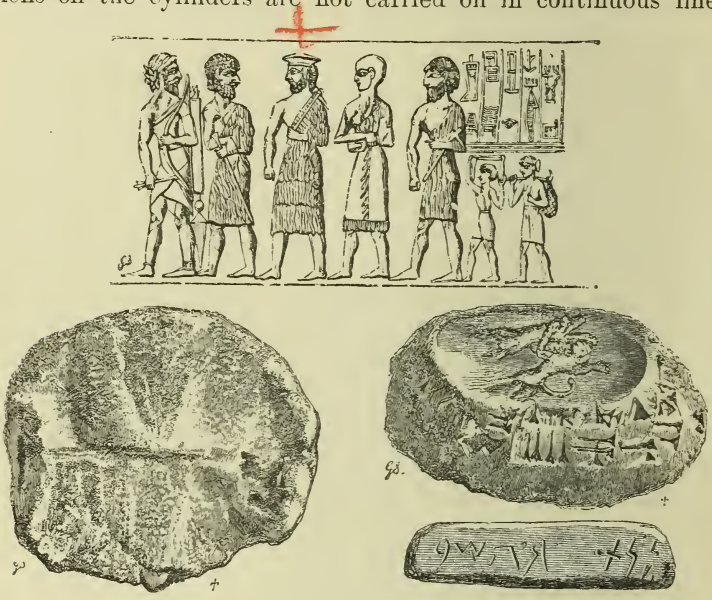


Assyrian Cylinder.

[4] Occasionally the slabs have been purposely defaced and rendered illegible, probably by kings of another dynasty.

[5] Birch, *Ancient Pottery*, p. 144.

bered that the whole inscription was in every case impressed by the hand, this minuteness must be allowed to be very surprising. It is not favourable to legibility; and the patience of cuneiform scholars has been severely tried by a mode of writing which sacrifices everything to the desire of crowding the greatest possible quantity of words into the smallest possible space. In one respect, however, facility of reading is consulted, for the inscriptions on the cylinders are not carried on in continuous lines



Assyrian Seals (after Layard).

round all the sides, but are written in columns, each column occupying a side. The lines are thus tolerably short; and the whole of a sentence is brought before the eye at once.

Besides slabs and cylinders, the written memorials of Assyria comprise inscribed bulls and lions, stone obelisks, clay tablets, bricks, and engraved seals. The seals generally resemble those of the Chaldæans, which have been already described;[6] but are somewhat more elaborate, and more varied in their character.

[6] See above, "First Monarchy," ch. iv. p. 68, and ch. v. pp. 93–95.

They do not very often exhibit any writing; but occasionally they are inscribed with the name of their owner,[7] while in a few instances they show an inscription of some length. The clay tablets are both numerous and curious. They are of various sizes, ranging from nine inches long by six and a half wide, to an inch and a half long by an inch wide, or even less.[8] Sometimes they are entirely covered with writing; while sometimes they exhibit on a portion of their surface the

Assyrian Clay Tablets (after Layard).

impressions of seals, mythological emblems, and the like. Some thousands of them have been recovered; and they are found to be of the most varied character. Many are historical, still more mythological; some are linguistic, some geographic, some again astronomical. It is anticipated that, when they are deciphered, we shall obtain a complete encyclopædia of Assyrian science, and shall be able by this means to trace a large portion of the knowledge of the Greeks to an Oriental source. Here is a mine still very little worked, from which patient and cautious investigators may one day extract the most valuable literary

[7] Layard, *Nineveh and Babylon*, p. 604, note.

[8] Ibid. p. 345.

treasures. The stone obelisks are but few, and are mostly in a fragmentary condition. One alone is perfect—the obelisk in black basalt, discovered by Mr. Layard at Nimrud, which has now for many years been in the British Museum. This monument is sculptured on each of its four sides, in part with writing

Black Obelisk, from Nimrud (after Birch).

and in part with bas-reliefs. It is about seven feet high, and two feet broad at the base, tapering gently towards the summit, which is crowned with three low steps, or gradines. The inscription, which occupies the upper and lower portion of each side, and is also carried along the spaces between the bas-reliefs, consists of 210 clearly cut lines, and is one of the most important documents that has come down to us. It gives an

account of various victories gained by the monarch who set it up, and of the tribute brought him by several princes.[9] The inscribed lions and bulls are numerous. They commonly guard the portals of palaces, and are raised in a bold relief on alabaster slabs. The writing does not often trench upon the sculpture, but covers all those portions of the slabs which are not occupied by the animal. It is usually a full account of some particular campaign, which was thus specially commemorated, giving in detail what is far more briefly expressed in the obelisk and slab inscriptions.[1]

This review of the various kinds of documents which have been discovered in the ancient cities of Assyria, seems to show that two materials were principally in use among the people for literary purposes, namely, stone and moist clay. The monarchs used the former most commonly, though sometimes they condescended for some special object to the coarser and more fragile material. Private persons in their business transactions, literary and scientific men in their compositions, employed the latter, on which it was possible to write rapidly with a triangular instrument, and which was no doubt far cheaper than the slabs of fine stone, which were preferred for the royal inscriptions. The clay documents, when wanted for instruction or as evidence, were carefully baked; and thus it is that they have come down to us, despite their fragility, often in as legible a condition, with the letters as clear and sharp, as any legend on marble, stone, or metal that we possess belonging to Greek, or even to Roman times. The best clay skilfully baked, is a material quite as enduring as either stone or metal;[2] resisting many influences better than either of those materials.

It may still be asked, did not the Assyrians use other materials also? Did they not write with ink of some kind on paper, or leather, or parchment? It is certain that the Egyptians had invented a kind of thick paper many centuries before the Assyrian power arose;[3] and it is further certain that the

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[9] See the translation by Dr. Hincks in the *Dublin University Magazine* for October, 1853.

[1] *Journ. of Asiatic Soc.*, vol. xii. p. 441.

[2] Birch, *Ancient Pottery*, vol. i. p. 2.

[3] Wilkinson, in the author's *Herodotus*, vol. ii. p. 320, § 33.

later Assyrian kings had a good deal of intercourse with Egypt. Under such circumstances, can we suppose that they did not import paper from that country? Again, the Persians, we are told, used parchment for their public records.[4] Are not the Assyrians, a much more ingenious people, likely to have done the same, at any rate to some extent? There is no direct evidence by which these questions can be determinately answered. No document on any of the materials suggested has been found. No ancient author states that the Assyrians or the Babylonians used them.[5] Had it not been for one piece of indirect evidence, it would have seemed nearly certain that they were not employed by the Mesopotamian races. In some of the royal palaces, however, small lumps of fine clay have been found, bearing the impressions of seals, and exhibiting traces of the string by which they were attached to documents, while the documents themselves, being of a different material, have perished.[6] It seems probable that in these instances some substance like paper or parchment was used; and thus we are led to the conclusion that, while clay was the most common, and stone an ordinary writing material among the Assyrians, some third substance, probably Egyptian paper, was also known, and was used occasionally, though somewhat rarely, for public documents.

We may now proceed to consider the style and nature of the Assyrian writing. Derived evidently from the Chaldæan, it is far less archaic in type, presenting no pictorial representations of objects, and but a few characters where the pictorial representation can be traced. It is in no case wholly rectilinear; and

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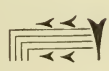
[4] Diod. Sic. ii. 32. As Diodorus' sole authority here is the untrustworthy Ctesias, no great dependance can be placed on his statement.

[5] This is not a *mere* negative argument, since statements of the nature of the material used do occur, and accord with the monumental facts. Epigenes, for instance, spoke of the Babylonians recording their astronomical observations upon baked tiles ("coctilibus laterculis," Plin. *H. N.* vii. 56), and the historians of Alexander mentioned a stone inscription of Sardanapalus (Arr. *Exp. Al.* ii. 5; Strab. xiv. 5, § 9). The eastern tradition that Seth wrote the history and wisdom of antediluvian times on burnt and unburnt brick (Layard, *Nin. and Bab.* p. 347, note), has a similar bearing.

[6] Layard, p. 154; Botta, *Letters from Nineveh*, p. 27. For a representation of the mark of the string see above, p. 264.

indeed preserves the straight line only in a very few characters, as in for "house,"  for "gate," for "temple, altar," and for "fish," all which are in the later inscriptions superseded by simpler forms. The wedge may thus be said to be almost the sole element of the writing—the wedge, however, under a great variety of forms—sometimes greatly elongated, as thus , sometimes contracted to a triangle , sometimes broadened out , sometimes doubled in such a way as to form an arrow-head , and placed in every direction—horizontal, perpendicular, and diagonal.

The number of characters is very great. Sir H. Rawlinson, in the year 1851, published a list of 246, or including variants, 366 characters, as occurring in the inscriptions known to him.[7] M. Oppert, in 1858, gave 318 forms as those "most in use."[8] Of course it is at once evident that this alphabet cannot represent elementary sounds. The Assyrian characters, do, in fact, correspond, not to letters, according to our notion of letters, but to syllables. These syllables are either mere vowel sounds, such as we represent by our vowels and diphthongs, or such sounds accompanied by one or two consonants. The vowels are not very numerous. The Assyrians recognise three only as fundamental—*a*, *i*, and *u*. Besides these they have the diphthongs *ai*, nearly equivalent to *e*, and *au*, nearly equivalent to *o*.[9] The vowels *i* and *u* have also the powers, respectively, of *y* and *v*.

The consonant sounds recognised in the language are sixteen

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[7] *Journal of Asiatic Society*, vol. xiv.

[8] *Expédition scientifique en Mésopotamie*, tom. ii. livre i. Appendice; Catalogue des signes *les plus usités*, pp. 107–120.

[9] The vowels must be sounded as in Italian, A as *a* in "vast"—E as *a* in "face"—I as *e* in "me"—O as *o* in "host"—U as *u* in "rude."

in number. They are the labial, guttural, and dental *tenues*, *p*, *k*, *t*; the labial, guttural, and dental *mediæ*, *b*, *g*, *d*; the guttural and dental aspirates, *kh* (= Heb. ח) and *th* (= Greek θ); the liquids *l*, *m*,[1] *n*, *r*; and the sibilants *s*, *sh* (= Heb. שׁ), *ts* (=Heb. צ), and *z*. The system here is nearly that of the Hebrews, from which it differs only by the absence of the simple aspirate ה,[2] of the guttural ע, and of the aspirated פ (*ph*). It has no sound which the Hebrew has not.

From these sounds, combined with the simple vowels, comes the Assyrian syllabarium, to which, and not to the consonants themselves, the characters were assigned. In the first place, each consonant being capable of two combinations with each simple vowel, could give birth naturally to six simple syllables, each of which would be in the Assyrian system represented by a character. Six characters, for instance, entirely different from one another, represented *pa*, *pi*, *pu*, *ap*, *ip*, *up*; six others, *ka*, *ki*, *ku*, *ak*, *ik*, *uk*; six others again, *ta*, *ti*, *tu*, *at*, *it*, *ut*. If this rule were carried out in every case the sixteen consonant sounds would, it is evident, produce 96 characters. The actual number, however, formed in this way, is only 75, since there are seven of the consonants which only combine with the vowels in one way. Thus we have, *ba*, *bi*, *bu*, but not *ab*, *ib*, *ub*; *ga*, *gi*, *gu*, but not *ag*, *ig*, *ug*; and so on. The sounds regarded as capable of only one combination are the *mediæ*, *b*, *g*, *d*; the aspirates *kh* and *th*; and the sibilants *ts* and *z*.

Such is the first and simplest syllabarium: but the Assyrian system does not stop here. It proceeds to combine with each simple vowel sound two consonants, one preceding the vowel and the other following it. If this plan were followed out to the utmost possible extent, the result would be an addition to the syllabarium of 768 sounds, each having its proper character, which would raise the number of characters to between eight and nine hundred! Fortunately for the student, phonetic laws

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[1] The Assyrians confounded the sounds of *m* and *v*, as the Greeks did those of μ and β. (See Buttmann's *Lexilogus*, p. 84, and p. 189, E. T.)

[2] There is a character representing the soft breathing ʾ; but none, apparently, for the rough breathing ʿ.

and other causes have intervened to check this extreme luxuriance; and the combinations of this kind which are known to exist, instead of amounting to the full limit of 768, are under 150. The known Assyrian alphabet is, however, in this way raised from 80, or, including variants, 100, to between 240 and 250 characters.

Further, there is another kind of character, quite different from these, which Orientalists have called "determinatives." Certain classes of words have a sign prefixed or suffixed to them, most commonly the former, by which their general character is indicated. The names of gods, of men, of cities, of tribes, of wild animals, of domestic animals, of metals, of months, of the points of the compass, and of dignities, are thus accompanied. The sign prefixed or suffixed may have originally represented a word; but when used in the way here spoken of, it is believed that it was not sounded, but served simply to indicate to the reader the sort of word which was placed before him. Thus a single perpendicular wedge, , indicates that the next word will be the name of a man; such a wedge, preceded by two horizontal ones, , tells us to expect the appellative of a god; while other more complicated combinations are used in the remaining instances. There are about ten or twelve characters of this description.

Finally, there are a certain number of characters which have been called "ideographs," or "monograms." Most of the gods, and various cities and countries are represented by a group of wedges, which is thought not to have a real phonetic force, but to be a conventional sign for an idea, much as the Arabic numerals, 1, 2, 3, &c., are non-phonetic signs representing the ideas, one, two, three, &c. The known characters of this description are between twenty and thirty.

The known Assyrian characters are thus brought up nearly to three hundred! There still remain a considerable number which are either wholly unknown, or of which the meaning is

known, while the phonetic value cannot at present be determined. M. Oppert's Catalogue contains fourteen of the former and fifty-nine of the latter class.

It has been already observed, that the monumental evidence accords with the traditional belief in regard to the character of the Assyrian language, which is unmistakably Semitic. Not only does the vocabulary present constant analogies to other Semitic dialects, but the phonetic laws and the grammatical forms are equally of this type. At the same time the language has peculiarities of its own, which separate it from its kindred tongues, and constitute it a distinct form of Semitic speech, not a mere variety of any known form. It is neither Hebrew, nor Arabic, nor Phœnician, nor Chaldee, nor Syriac, but a sister tongue to these, having some analogies with all of them, and others, more or fewer, with each. On the whole, its closest relationship seems to be with the Hebrew, and its greatest divergence from the Aramaic or Syriac, with which it was yet, locally, in immediate connection.

To attempt anything like a full illustration of these statements in the present place would be manifestly unfitting. It would be to quit the province of the historian and archæologist, in order to enter upon that of the comparative philologer or the grammarian. At the same time a certain amount of illustration seems necessary, in order to show that the statements above made are not mere theories, but have a substantial basis.

The Semitic character of the vocabulary will probably be felt to be sufficiently established by the following lists:—

NOUNS SUBSTANTIVE.

Abu, "a father." Compare Heb. אָב, אָבִי; Arabic *abou*.
Ummu, "a mother." Comp. Heb. אֵם, and Arabic *um*.
Akhu, "a brother." Comp. Heb. אָח, אָחִי.
Pal or *bal*, "a son." Comp. Syriac *bar*, and perhaps Heb. בֵּן.
Ilu, "God." Comp. Heb. אֵל, אֱלוֹהַּ; Arabic *Allah*.
Sarru, "a king." Comp. Heb. שַׂר.
Malik, "a prince." Comp. Heb. מֶלֶךְ, and Arabic *malik*.
Bilu, "a lord." Comp. Heb. בַּעַל.
Nisu, "a man." Comp. Heb. אֱנוֹשׁ, "a mortal," and Chald. נָשִׁים, "women."

Dayan, "a judge." Comp. Heb. דַּיָּן, from דּוּן, *judicare*.
Sumu, "a name." Comp. Heb. שֵׁם.
Sami, "heaven." Comp. Heb. שָׁמַיִם, "the heavens."
Irtsit, "the earth." Comp. Heb. אֶרֶץ.
Shamas, "the sun." Comp. Heb. שֶׁמֶשׁ.
Tsin, "the moon." Comp. Syriac *sin*.
Marrat, or *varrat*, "the sea." Comp. Arabic *bahr*, "a lake" (?). Or may the root be מַר, "bitter"? Comp. Lat. *mare*, *a-marus*.
Nahar, "a river." Comp. Heb. נָהָר, and Arabic *nahr*.
Yumu, "day." Comp. Heb. יוֹם.
Ilamu, "the world." Comp. Heb. עוֹלָם.
'Ir, "a city." Comp. Heb. עִיר.
Bit, "a house." Comp. Heb. בַּיִת.
Bab, "a gate." Comp. Chald. בָּבָה, and Arabic *bab*.
Lisan, "a tongue," or "language." Comp. Heb. לָשׁוֹן; Chald. לְשַׁן.
Asar, "a place." Comp. Chald. אֲתַר.
Mitu, "death." Comp. Heb. מוֹת.
Susu, "a horse." Comp. Heb. סוּס.

ADJECTIVES.

Rabu, "great." Comp. Heb. רַב; whence the well-known Rabbi (רַבָּא), "a great one, a doctor."
Tabu, "good." Comp. Chald. טָב, and Heb. טוֹב.
Bashu, "bad." Comp. Heb. מְבִישׁ, "a base one," from בּוֹשׁ, "to be ashamed."
Madut, "many." Comp. Heb. מְאֹד, "exceedingly."
Ruk, "far, wide." Comp. Heb. רָחוֹק.

NUMERALS.

[The forms marked with an asterisk are conjectural.]

Ishtin, "one" (masc.). Comp. Heb. עָשְׂתֵי, in עַשְׂתֵי־עָשָׂר, "eleven."
Ikhit, "one" (fem.). Comp. Heb. אַחַת.
Shanai, "two" (masc.). Comp. Heb. שְׁנַי, שְׁנַיִם.
Shalshat, "three" (masc.). Comp. Heb. שְׁלֹשָׁה.
Shilash, "three" (fem.). Comp. Heb. שָׁלֹשׁ.
Arbat, "four" (masc.). Comp. Heb. אַרְבָּעָה.
Arba, "four" (fem.). Comp. Heb. אַרְבַּע.
Khamshat, "five" (masc.). Comp. Heb. חֲמִשָּׁה.
Khamish, "five" (fem.). Comp. Heb. חָמֵשׁ.
Shashat, "six" (masc.). Comp. Heb. שִׁשָּׁה.
Shash, "six" (fem.). Comp. Heb. שֵׁשׁ.
Shibit, "seven" (masc.). Comp. Heb. שִׁבְעָה.

Shibi, "seven" (fem.). Comp. Heb. שֶׁבַע.
Shamnat,* "eight" (masc.). Comp. Heb. שְׁמֹנָה.
Tishit,* "nine" (masc.). Comp. Heb. תִּשְׁעָה.
Tishi,* "nine" (fem.). Comp. Heb. תֵּשַׁע.
Isrit, "ten" (masc.). Comp. Heb. עֲשָׂרָה.
Isri, "ten" (fem.). Comp. Heb. עֶשֶׂר.
Israi, "twenty." Comp. Heb. עֶשְׂרִים.
Shilashai, "thirty." Comp. Heb. שְׁלֹשִׁים.
Irba'ai, "forty." Comp. Heb. אַרְבָּעִים.
Khamshai, "fifty." Comp. Heb. חֲמִשִּׁים.
Shishai, "sixty." Comp. Heb. שִׁשִּׁים.
Shibai, "seventy." Comp. Heb. שִׁבְעִים.
Shamnai,* "eighty." Comp. Heb. שְׁמֹנִים.
Tishai, "ninety." Comp. Heb. תִּשְׁעִים.
Mai, or *Mi*, "a hundred." Comp. Heb. מֵאָה.

PRONOUNS.

[The forms marked with an asterisk are conjectural.]

Anaku, "I." Heb. אָנֹכִי.
Atta, "thou" (masc.). Heb. אַתָּה.
Atti,* "thou" (fem.). Heb. אַתְּ.
Shu, "he." Heb. הוּא.
Shi, "she." Heb. הִיא.
Anakhni (?), "we." Heb. אֲנַחְנוּ.
Attun,* "ye" (masc.). Heb. אַתֶּם.
Attin,* "ye" (fem.). Heb. אַתֶּן.
Shunut, or *Shun*, "they" (masc.). Heb. הֵם, חֵמָּה.
Shinat, or *Shin*, "they" (fem.). Heb. הֵן, חֵנָּה.
Ma, "who, which." Heb. מָה.
Ullu, "that." Heb. אֵלֶּה, "these."

VERBS.

Alak, "to go." Heb. הָלַךְ
Bakhar, "to collect." Comp. Heb. בָּחַר, "to select."
Bana, "to create, to build." Heb. בָּנָה.
Dana, "to give," in Niphal, *nadan*. Heb. נָתַן.
Din, "to judge." Heb. דִּין.
Duk, "to kill." Comp. Heb. דָּקַק, "to beat small;" דּוּךְ, "to pound or bruise." Chald. דכר.
'Ibir, "to pass, cross." Heb. עָבַר.
'Ibush, "to make." Comp. Chald. עֲבַד.
'Irish, "to ask, pray." Comp. Heb. אֶרְיֵשֶׁת, "a request, desire."

Natsar, "to guard." Heb. נָצַר.
Naza, "to leap." Heb. נָזָה.
Nazal, "to flow, sink, descend." Heb. נָזַל.
Pakad, "to entrust." Heb. פָּקַד.
Saga, "to grow, become great." Heb. שָׂגָא.
Shakan, "to dwell." Heb. שָׁכַן.
Shatar, "to write." Comp. Chald. שְׁטָרָא, "a written contract."
Tsabat, "to hold, possess." Comp. Heb. צָבַת, "a bundle;" Arab. *tsabat*, "to hold tight;" Chald. צְבָתָה, "tongs."

ADVERBS, CONJUNCTIONS, &c.

U, "and." Heb. וְ or וּ.
La, or *ul*, "not." Heb. לוֹ.
Lapani, "before the face of." Heb. אֶל-פְּנֵי.
Tsilli, "by favour of." Heb. צִלְלֵי.
'Ilat, "except." Chald. אֶלָּא.
Adi, "until." Heb. עַד.
Ki, "if." Heb. כִּי.

It remains to notice briefly some of the chief grammatical laws and forms. There is one remarkable difference between the Assyrian language and the Hebrew, namely, that the former has no article. In this it resembles the Syriac, which is likewise deficient in this part of speech.

Assyrian nouns, like Hebrew ones, are all either masculine or feminine. Feminine nouns end ordinarily in *-at* or *-it*, as Hebrew ones in *-eth*, *-ith*, *-uth*, or *-ah*. There is a dual number, as in Hebrew, and it has the same limited use, being applied almost exclusively to those objects which form a pair. The plural masculine is commonly formed by adding *-i* or *-ani* to the singular—terminations which recal the Hebrew addition of -ִים; but sometimes by adding *-ut* or *-uti*, to which there is no analogy in Hebrew.[3] The plural feminine is made by changing *-it* into *-et*, and *-ăt* into *āt*, or (if the word does not end in *t*), by adding *-āt*. Here again there is resemblance to, though not identity with, the Hebrew, which forms the feminine plural in *-oth* (-וֹת).

[3] The nearest approach to an analogy is to be found in those Hebrew nouns which adopt the feminine termination for their plurals, as אָב "a father," אָבוֹת "fathers." But in Assyrian the masculine plural termination *-ut* is not identical with the feminine, which is *-et* or *-at*.

Assyrian, like Hebrew, adjectives, agree in gender and number with their substantives. They form the feminine singular in *-ăt*, the plural masculine in *-i* and *-ut*, the plural feminine in *-āt* and *-et*.

In Assyrian, as in all other Semitic languages, the possessive pronouns are expressed by suffixes. These suffixes are, for the first person singular, *-ya*, or *-iya* (Heb. יְ-); for the second person singular masculine, *-ka* (Heb. ךָ-); for the second person singular feminine, *-ki* (Heb. ךְ-); for the third person singular masculine, *-shu* (Heb. וֹ-); for the third person singular feminine, *-sha* (Heb. הָ-); for the first person plural, *-n* (Heb. נוּ-); for the second person plural masculine, *-kun* (Heb. כֶם-); for the second person plural feminine, *-kin* (Heb. כֶן-); for the third person plural masculine, *shun* (Heb. ם-); for the third person plural feminine, *shin* (Heb. ן-). The resemblance, it will be seen, is in most cases close, though in only one is there complete identity.

Assyrian verbs have five principal, and four secondary, voices. Only two of these—the *kal* and the *niphal*—are exactly identical with the Hebrew. The *pael*, however, corresponds nearly to the Hebrew *piel*, and the *aphel* to the Hebrew *hiphil*. In addition to these we find enumerated the *shaphil*, the *iphteal*, the *iphta'al*, the *istaphal*, and the *itaphal*. Several of these are well known forms in Chaldee.

It is peculiar to Assyrian to have no distinctions of tense. The same form of the verb serves for the present, the past, and the future. The only distinctions of mood are an imperative and an infinitive, besides the indicative. There is also, in each voice, one participle.

The verbs are conjugated by the help of pronominal suffixes and prefixes, chiefly the latter, like the future (present) tense in Hebrew. The suffixes and prefixes are nearly identical with those used in Hebrew.

For further particulars on this interesting subject the student is referred to the modest but excellent work of M. Oppert, entitled 'Élémens de la Grammaire Assyrienne,'[4] from which the greater portion of the above remarks are taken.

[4] "*Élémens*, &c." par M. Jules Oppert. Paris, Imprimerie Impériale, 1860.

CHAPTER VI.

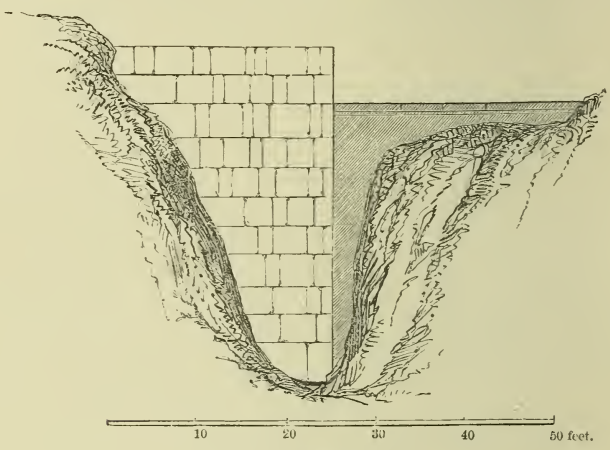
ARCHITECTURE AND OTHER ARTS.

"Architecti multarum artium solertes."—Mos. Chor. (*De Assyriis*) i. 15.

The luxury and magnificence of the Assyrians, and the advanced condition of the arts among them which such words imply, were matters familiar to the Greeks and Romans; who, however, had little ocular evidence of the fact, but accepted it upon the strength of a very clear and uniform tradition. More fortunate than the nations of classical antiquity, whose comparative proximity to the time proved no advantage to them, we possess in the exhumed remains of this interesting people a mass of evidence upon the point, which, although in many respects sadly incomplete, still enables us to form a judgment for ourselves upon the subject, and to believe—on better grounds, than they possessed—the artistic genius and multiform ingenuity of the Assyrians. As architects, as designers, as sculptors, as metallurgists, as engravers, as upholsterers, as workers in ivory, as glassblowers, as embroiderers of dresses, it is evident that they equalled, if they did not exceed, all other Oriental nations. It is the object of the present chapter to give some account of their skill in these various respects. Something is now known of them all; and though in every case there are points still involved in obscurity, and recourse must therefore be had upon occasion to conjecture, enough appears certainly made out to justify such an attempt as the present, and to supply a solid groundwork of fact valuable in itself, even if it be insufficient to sustain in addition any large amount of hypothetical superstructure.

The architecture of the Assyrians will naturally engage our attention at the outset. It is from an examination of their edifices that we have derived almost all the knowledge which we

possess of their progress in every art; and it is further as architects that they always enjoyed a special repute among their neighbours. Hebrew and Armenian united with Greek tradition in representing the Assyrians as notable builders at a very early time. When Asshur "went forth out of the land of Shinar," it was to build cities, one of which is expressly called "a great city."[1] When the Armenians had to give an account of the palaces and other vast structures in their country, they ascribed their erection to the Assyrians.[2] Similarly, when the Greeks sought to trace the civilisation of Asia to its source,



Terrace-wall at Khorsabad.

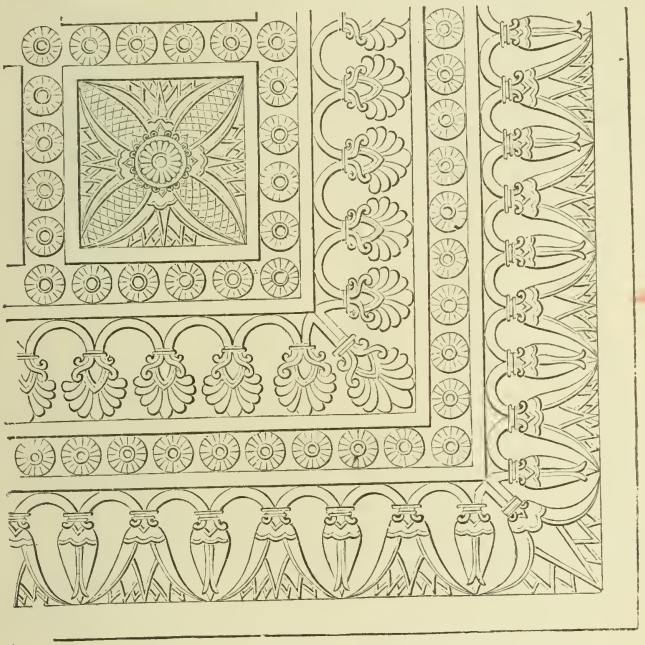
they carried it back to Ninus and Semiramis, whom they made the founders, respectively, of Nineveh and Babylon,[3] the two chief cities of the early world.

Among the architectural works of the Assyrians, the first place is challenged by their palaces. Less religious, or more servile, than the Egyptians and the Greeks, they make their temples insignificant in comparison with the dwellings of their kings, to which indeed the temple is most commonly a sort of appendage. In the palace their art culminates—there every effort is made, every ornament lavished. If the architecture of

[1] Gen. x. 12. [2] Mos. Choren. i. 15. [3] Diod. Sic. ii. 3 and 5.

the Assyrian palaces be fully considered, very little need be said on the subject of their other buildings.

The Assyrian palace stood uniformly on an artificial platform. Commonly this platform was composed of sun-dried bricks in regular layers; but occasionally the material used was merely earth or rubbish, excepting towards the exposed parts—the sides and the surface—which were always either of brick or of stone. In most cases the sides were protected by massive stone

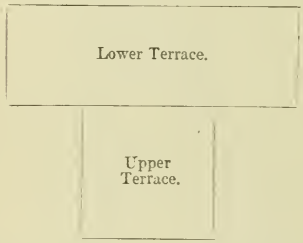


Pavement-slab, from the Northern Palace, Koyunjik.

masonry, carried perpendicularly from the natural ground to a height somewhat exceeding that of the platform, and either made plain at the top or else crowned with stone battlements cut into gradines. The pavement consisted in part of stone slabs, in part of kiln-dried bricks of a large size, often as much as two feet square. The stone slabs were sometimes inscribed, sometimes ornamented with an elegant pattern. (See above.) Occasionally the terrace was divided into portions at different elevations, which

were connected by staircases or inclined planes. The terrace communicated in the same way with the level ground at its base, being (as is probable) sometimes ascended in a single place, sometimes in several. These ascents were always on the side where the palace adjoined upon the neighbouring town, and were thus protected from hostile attack by the town-walls. Where the palace abutted upon the walls or projected beyond them—and the palace was always placed at the edge of a town, for the double advantage, probably, of a clear view and of fresh air—the platform rose perpendicularly or nearly so; and generally a water protection, a river, a moat, or a broad lake, lay at its base, thus rendering attack, except on the city side, almost impossible.

The platform appears to have been, in general shape, a rectangle, or where it had different elevations, to have been composed of rectangles. The mound of Khorsabad, which is of this latter character, resembles a gigantic T.



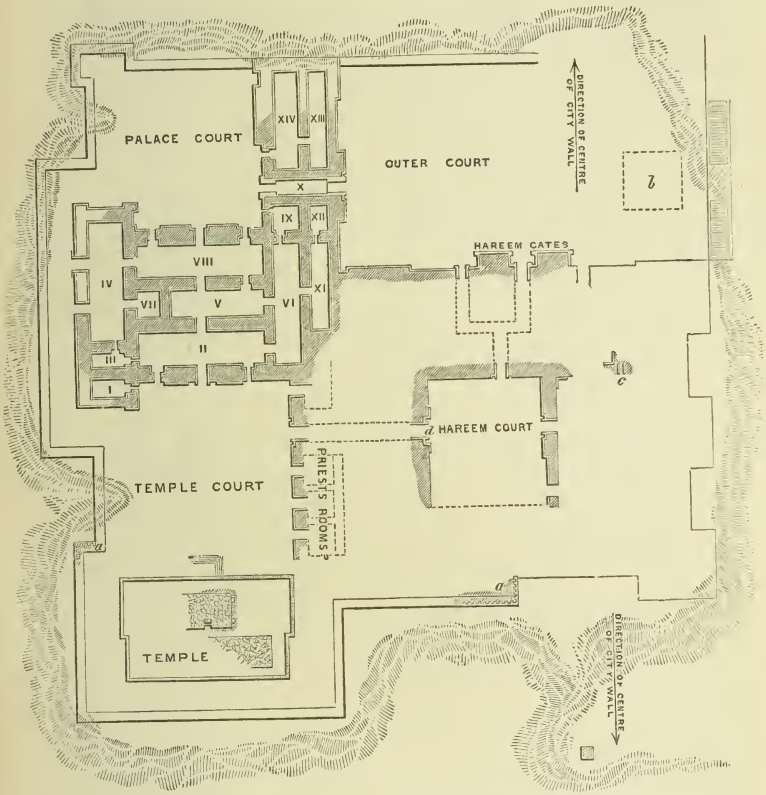
It must not be supposed, however, that the rectangle was always exact. Sometimes its outline was broken by angular projections and indentations, as in the annexed plan (p. 281),[4] where the shaded parts represent actual discoveries. Sometimes it grew to be irregular, by the addition of fresh portions, as new kings arose who determined on fresh erections. This is the case at Nimrud, where the platform broadens towards its lower or southern end,[5] and still more at Koyunjik and Nebbi Yunus,[6] where the rectangular idea has been so overlaid as to have almost wholly disappeared. Palaces were commonly placed near one edge of the mound—more especially near the river edge—probably for the better enjoyment of the prospect, and of the cool air over the water.

[4] The plan is borrowed, by permission, from Mr. Fergusson's excellent work, *The Palaces of Nineveh and Persepolis Restored*. Mr. Fergusson remarks that this feature of alternate projection and indentation is found also in the Persepolitan platform (see p. 239).

[5] See the plan, supra, p. 200.

[6] See above, p. 253.

The palace itself was composed of three main elements, courts, grand halls, and small private apartments. A palace has usually from two to four courts, which are either square or oblong, and vary in size according to the general scale of the building. In the north-west palace at Nimrud, the most ancient



Plan of the Palace of Sargon, Khorsabad (after Fergusson).

of the edifices yet explored, one court only has been found, the dimensions of which are 120 feet by 90. At Khorsabad, the palace of Sargon has four courts. Three of them are nearly square, the largest of these measuring 180 feet each way, and the smallest about 120 feet; the fourth is oblong, and must have been at least 250 feet long and 150 feet wide. The palace of Senna-

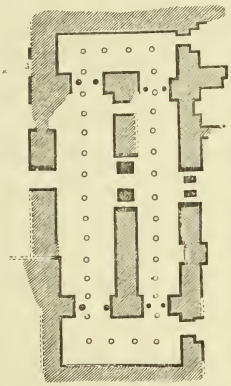
cherib at Koyunjik, a much larger edifice than the palace of Sargon, has also three courts, which are respectively 93 feet by 84, 124 feet by 90, and 154 feet by 125. Esar-haddon's palace at Nimrud has a court 220 feet long and 100 wide.[7] These courts were all paved either with baked bricks of large size, or with stone slabs, which were frequently patterned.[8] Sometimes the courts were surrounded with buildings; sometimes they abutted upon the edge of the platform: in this latter case they were protected by a stone parapet, which (at least in places) was six feet high.

The grand halls of the Assyrian palaces constitute their most remarkable feature. Each palace has commonly several. They are apartments narrow for their length, measuring from three to five times their own width, and thus having always somewhat the appearance of galleries. The scale upon which they are built is, commonly, magnificent. In the palace of Asshur-izir-pal at Nimrud, the earliest of the discovered edifices, the great hall was 160 feet long by nearly 40 broad. In Sargon's palace at Khorsabad the size of no single room was so great; but the number of halls was remarkable, there being no fewer than five of nearly equal dimensions. The largest was 116 feet long, and 33 wide; the smallest 87 feet long, and 25 wide. The palace of Sennacherib at Koyunjik contained the most spacious apartment yet exhumed. It was immediately inside the great portal, and extended in length 180 feet, with a uniform width of 40 feet. In one instance only, so far as appears, was an attempt made to exceed this width. In the palace of Esar-haddon, the son of Sennacherib, a hall was designed, intended to surpass all former ones. Its length was to be 165 feet, and its width 62; consequently it would have been nearly one-third larger than the great hall of Sennacherib, its area exceeding 10,000 square feet. But the builder who had designed this grand structure appears to have been unable to overcome the

[7] Mr. Layard calls this court a "hall" (*Nineveh and Babylon*, p. 654); but no one can compare his plan of Esar-haddon's Nimrud palace (No. 3, opp. p. 655) with M. Botta's plans of Khorsabad, and his own plans of Koyunjik, without seeing at once that the great space is really an inner court.

[8] See the woodcut on p. 279.

difficulty of carrying a roof over so vast an expanse. He was therefore obliged to divide his hall by a wall down the middle; which, though he broke it in an unusual way into portions, and kept it at some distance from both ends of the apartment, still had the actual effect of subdividing his grand room into four apartments of only moderate size. The halls were paved with sun-burnt brick. They were ornamented throughout by the elaborate sculptures, now so familiar to us, carried generally in a single, but sometimes in a double line, round the four walls of the apartment. The sculptured slabs rested on the ground, and clothed the walls to the height of 10 or 12 feet. Above, for a space which we cannot positively fix, but which was certainly not less than four or five feet,[9] the crude brick wall was continued, faced here with burnt brick enamelled on the side towards the apartment, pleasingly and sometimes even brilliantly coloured.[1] The whole height of the walls was probably from 15 to 20 feet.



Hall of Esar-haddon's Palace, Nimrud.
(After Fergusson.)

By the side of the halls, or at their ends, and opening into them, or sometimes collected together into groups, with no hall near, are the smaller chambers of which mention has been already made. These chambers are in every case rectangular: in their proportions they vary from squares to narrow oblongs, 90 feet by 17, 85 by 16, 80 by 15, and the like. When they are square, the side is never more than about 25 feet. They are often as richly decorated as the halls, but sometimes are merely faced with plain slabs or plastered; while occasionally they have no facing at all, but exhibit throughout the crude brick. This, however, is unusual.

The number of chambers in a palace is very large. In

[9] As much as four feet of the wall has sometimes been found standing (Fergusson's *Palaces*, p. 267).

[1] See the specimens of enamelled bricks in Mr. Layard's *Monuments of Nineveh*, 1st Series, Plates 84 to 86.

Sennacherib's palace at Koyunjik, where great part of the building remains still unexplored, the excavated chambers amount to sixty-eight—all, be it remembered, upon the ground floor. The space covered by them and by their walls exceeds 40,000 square yards. As Mr. Fergusson observes, "the imperial palace of Sennacherib is, of all the buildings of antiquity, surpassed in magnitude only by the great palace-temple of Karnak; and when we consider the vastness of the mound on which it was raised, and the richness of the ornaments with which it was adorned, it is by no means clear that it was not as great, or at least as expensive, a work as the great palace-temple at Thebes."[2] Elsewhere the excavated apartments are less numerous; but in no case is it probable that a palace contained on its ground floor fewer than forty or fifty chambers.

The most striking peculiarity which the ground-plans of the palaces disclose is the uniform adoption throughout of straight and parallel lines. No plan exhibits a curve of any kind, or any angle but a right angle. Courts, chambers, and halls, are, in most cases, exact rectangles; and even where any variety occurs, it is only by the introduction of squared recesses or projections, which are moreover shallow and infrequent. When a palace has its own special platform, the lines of the building are further exactly parallel with those of the mound on which it is placed; and the parallelism extends to any other detached buildings that there may be anywhere upon the platform.[3] When a mound is occupied by more palaces than one, sometimes this law still obtains, as at Nimrud,[4] where it seems to embrace at any rate the greater number of the palaces; sometimes, as at Koyunjik,[5] the rule ceases to be observed, and the ground-plan of each palace seems formed separately and independently, with no reference to any neighbouring edifice.

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[2] *Handbook of Architecture*, vol. i. p. 176.

[3] See the plan of Sargon's palace at Khorsabad, supra, p. 281.

[4] See the plan of the Nimrud platform in Layard's *Nineveh and Babylon*, opp. p. 655. According to it, *all* the palaces on the platform would have their walls parallel to one another and to the sides of the platform; but Captain Jones's survey shows that the platform itself is irregular, so that Mr. Layard's representation appears to be inexact.

[5] The walls of the palace excavated by Mr. Loftus are not parallel with those of the edifice exhumed by Mr. Layard.

Apart from this feature, the buildings do not affect much regularity.[6] In courts and façades, to a certain extent, there is correspondence; but in the internal arrangements, regularity is decidedly the exception. The two sides of an edifice never correspond; room never answers to room; doorways are rarely in the middle of walls; where a room has several doorways, they are seldom opposite to one another, or in situations at all corresponding.

There is a great awkwardness in the communications. Very few corridors or passages exist in any of the buildings. Groups of rooms, often amounting to ten or twelve, open into one another; and we find comparatively few rooms to which there is any access, except through some other room. Again, whole sets of apartments are sometimes found, between which and the rest of the palace all communication is cut off by thick walls. Another peculiarity in the internal arrangements is the number of doorways in the larger apartments, and their apparently needless multiplication. We constantly find two or even three doorways leading from a court into a hall, or from one hall into a second. It is difficult to see what could be gained by such an arrangement.

The disposition of the various parts of a palace will probably be better apprehended from an exact account of a single building than from any further general statements. For this purpose it is necessary to select a specimen from among the various edifices that have been disentombed by the labours of recent excavators. The specimen should be, if possible, complete; it should have been accurately surveyed, and the survey should have been scientifically recorded; it should further stand single and separate, that there may be no danger of confusion between its remains and those of adjacent edifices. These requirements, though nowhere exactly met, are very nearly met by the building at Khorsabad, which stands on a mound of its own, unmixed with other edifices, has been most carefully examined, and most excellently represented and described, and which, though not

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[6] Compare the observations of M. Botta, *Monument de Ninive*, vol. v. p. 64.

completely excavated, has been excavated with a nearer approach to completeness than any other edifice in Assyria. The Khorsabad building—which is believed to be a palace built by Sargon, the son of Sennacherib—will therefore be selected for minute description in this place, as the palace most favourably circumstanced, and the one of which we have, on the whole, the most complete and exact knowledge.[7]

The situation of the town, whereof the palace of Sargon formed a part, has been already described in a former part of this volume.[8] The shape, it has been noted, was square, the angles facing the four cardinal points. Almost exactly in the centre of the north-west wall occurs the palace platform, a huge mass of crude brick, from 20 to 30 feet high, shaped like a T, the upper limb lying within the city walls, and the lower limb (which is at a higher elevation) projecting beyond the line of the walls to a distance of at least 500 feet. At present there is a considerable space between the ends of the wall and the palace mound;[9] but anciently it is probable that they either abutted on the mound, or were separated from it merely by gateways. The mound, or at any rate the part of it which projected beyond the walls, was faced with hewn stone,[10] carried perpendicularly from the plain to the top of the platform and even beyond, so as to form a parapet protecting the edge of the platform. On the more elevated portion of the mound—that which projected beyond the walls—stood the palace, consisting of three groups of buildings, the principal group lying towards the mound's northern angle. On the lower portion of the platform were several detached buildings, the most remarkable being a huge gateway, or propylæum, through which the entrance lay to the palace from the city. Beyond and below this, on the level of the city, the first or outer portals were placed,[1] giving entrance to a court in front of the lower terrace.

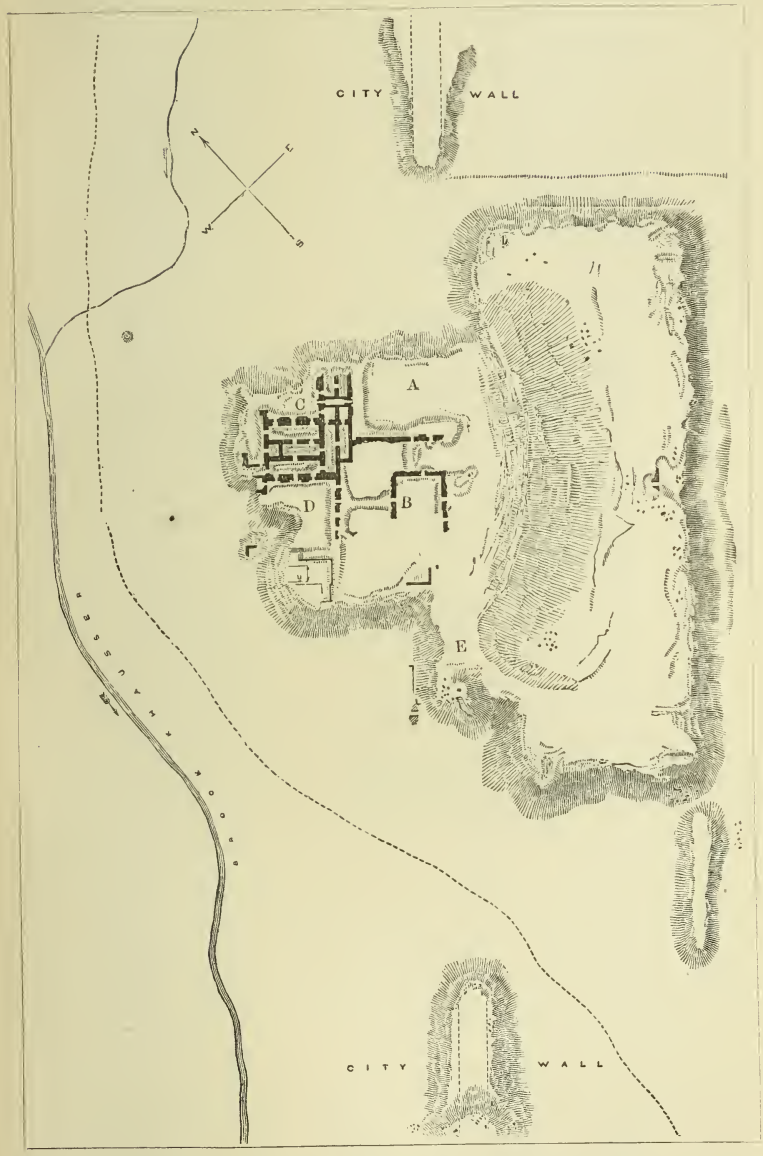
[7] See Fergusson's *Palaces*, pp. 234, 235.

[8] Supra, pp. 203, 204.

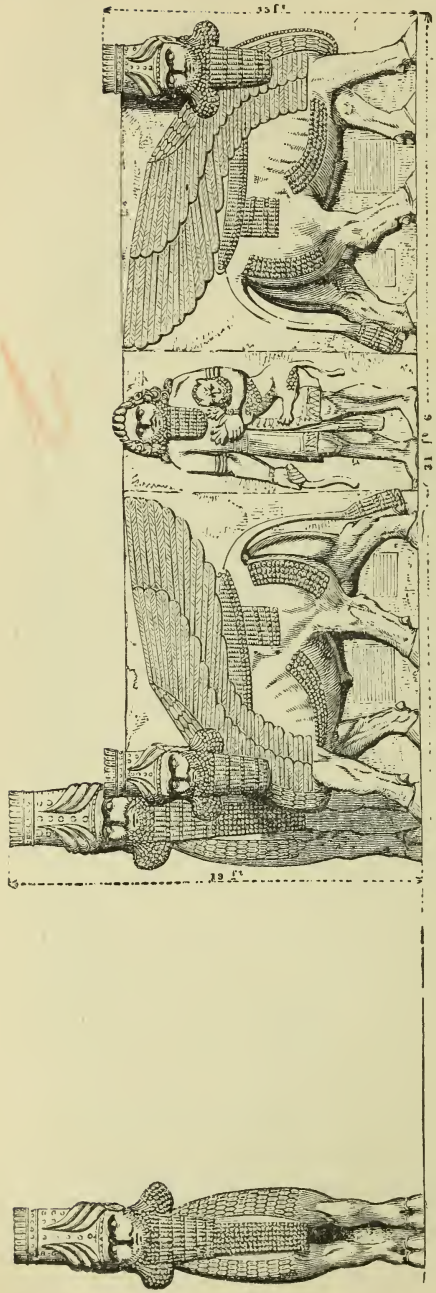
[9] The Khosr-Su, which runs on this side of the Khorsabad ruins, often overflows its banks, and pours its waters against the palace mound. The gaps north and south of the mound may have been caused by its violence.

[10] See the woodcut, supra, p. 278.

[1] These portals were discovered by M. Place, M. Botta's successor at Mosul. I cannot find that any representations of them have been published.



Plan of the Palace of Sargon, Khorsabad (after Fergusson).



Remains of Propylæum, or outer gateway, Khorsabad.

A visitor approaching the palace had in the first place to pass through these portals. They were ornamented with colossal human-headed bulls on either side, and probably spanned by an arch above, the archivolte being covered with enamelled bricks disposed in a pattern. Received within the portals, the visitor found himself in front of a long wall of solid stone masonry, the revêtement of the lower terrace, which rose from the outer court to a height of at least twenty feet. Either an inclined way or a flight of steps—probably the latter—must have led up from the outer court to this terrace. Here the visitor found another portal or propylæum of a magnificent character. Midway in the south-east side of the lower terrace, and about fifty feet from its edge, stood this

grand structure, a gateway ninety feet in width, and at least twenty-five in depth, having on each side three winged bulls of gigantic size, two of them fifteen feet high, and the third nineteen feet. Between the two smaller bulls, which stood back to back, presenting their sides to the spectator, was a colossal figure strangling a lion—the Assyrian Hercules, according to most writers. The larger bulls stood at right angles to these figures, withdrawn within the portal, and facing the spectator. The space between the bulls, which is nearly twenty feet, was (it is probable) arched over.[2] Perhaps the archway led into a chamber, beyond which was a second archway and an inner portal, as marked in Mr. Fergusson's plan; but this is at present uncertain.[3]

Besides the great portal, the only buildings as yet discovered on this lower platform, are a suite of not very extensive apartments. They are remarkable for their ornamentation. The walls are neither lined with slabs, nor yet (as is sometimes the case) painted; but the plaster of which they are composed is formed into sets of half pillars or reedings, separated from one another by pilasters with square sunk panels.[4] The former kind of ornamentation is found also in Lower Chaldæa, and has been already represented;[5] the latter is peculiar to this building. It is suggested that these apartments formed the quarters of the soldiers who kept watch over the royal residence.[6]

About 300 feet from the outer edge of the lower terrace, the upper terrace seems to have commenced. It was raised probably about ten feet above the lower one. The mode of access has not been discovered, but is presumed to have been by a flight of steps, not directly opposite the propylæum, but somewhat to the right, whereby entrance was given to the great court, into which opened the main gateways of the palace itself. The court was probably 250 feet long by 160 or 170 feet wide.

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[2] The widest Assyrian arch actually discovered is carried across a space of about 15 feet (infra, p. 301).

[3] Mr. Fergusson argues for the existence of a chamber and a second gateway, from the analogy of the Persepolitan ruins (*Palaces of Nineveh*, p. 246); but this analogy cannot be depended on.

[4] Fergusson, *Handbook of Architecture*, vol. i. p. 172.

[5] Supra, p. 83.

[6] Fergusson, *Handbook*, l. s. c.

The visitor, on mounting the steps, perhaps passed through another propylæum (*b* in the plan); after which, if his business was with the monarch, he crossed the full length of the court, leaving a magnificent triple entrance, which is thought to have led to the king's *hareem*, on his left, and making his way to the public gate of the palace, which fronted him when he mounted the steps. The *hareem* portal, which he passed, resembled in the main the great propylæum of the lower platform; but, being triple, it was still more magnificent, exhibiting two other entrances on either side of the main one, guarded each by a single pair of winged bulls of the smaller size. Along the *hareem* wall, from the gateway to the angle of the court, was a row of sculptured bas-reliefs, ten feet in height, representing

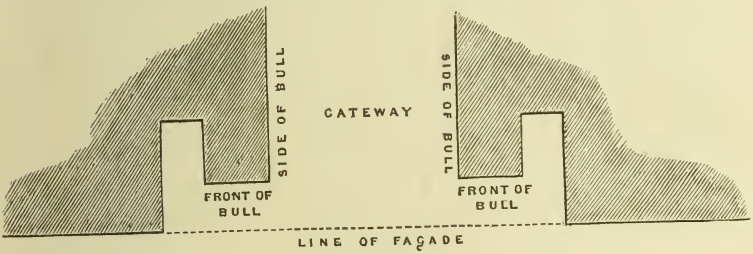
King and attendants, Khorsabad.

the monarch with his attendant guards and officers. The façade occupying the end of the court was of inferior grandeur. Sculptures similar to those along the *hareem* wall adorned it; but its centre showed only a single gateway, guarded by one pair of the larger bulls, fronting the spectator, and standing each in a sort of recess, the character of which will be best understood by the ground-plan on the next page. Just inside the bulls was the great door of the palace, a single door made of wood—apparently of mulberry[7]—opening inwards, and fastened on the inside by a bolt at bottom, and also by an enormous lock. This door gave entrance into a passage, 70 feet long and about 10 feet wide, paved with large slabs of stone, and adorned on either side with inscriptions and with a double row of sculptures, repre-

[7] Botta, *Monument de Ninive*, vol. v. p. 48.

senting the arrival of tribute and gifts for the monarch. All the figures here faced one way, towards the inner palace court, into which the passage led. M. Botta believes that the passage was uncovered;[8] while Mr. Fergusson[9] imagines that it was vaulted throughout. It must in any case have been lighted from above; for it would have been impossible to read the inscriptions, or even to see the sculptures, merely by the light admitted at the two ends.

From the passage in question—one of the few in the edifice—no doorway opened out either on the right hand or on the left. The visitor necessarily proceeded along its whole extent, as he saw the figures proceeding in the sculptures, and, passing through a second portal, found himself in the great inner court



of the palace, a square of about 150 or 160 feet, enclosed on two sides—the south-east and the south-west—by buildings, on the other two sides reaching to the edge of the terrace, which here gave upon the open country. The buildings on the south-east side, looking towards the north-west, and adjoining the gateway by which he had entered, were of comparatively minor importance. They consisted of a few chambers suitable for officers of the court, and were approached from the court by two doorways, one on either side of the passage through which he had come. To his left, looking towards the north-east, were the great state apartments, the principal part of the palace, forming a façade, of which some idea may perhaps be formed from the representation on page 293. The upper part of this

[8] Botta, *Monument de Ninive*, vol. v. p. 69.

[9] *Palaces of Nineveh*, p. 259.

representation is indeed purely conjectural; and when we come to consider the mode in which the Assyrian palaces were roofed and lighted, we shall perhaps find reason to regard it as not very near the truth; but the lower part, up to the top of the sculptures, the court itself, and the various accessaries, are correctly given, and furnish the only *perspective* view of this part of the palace which has been as yet published.

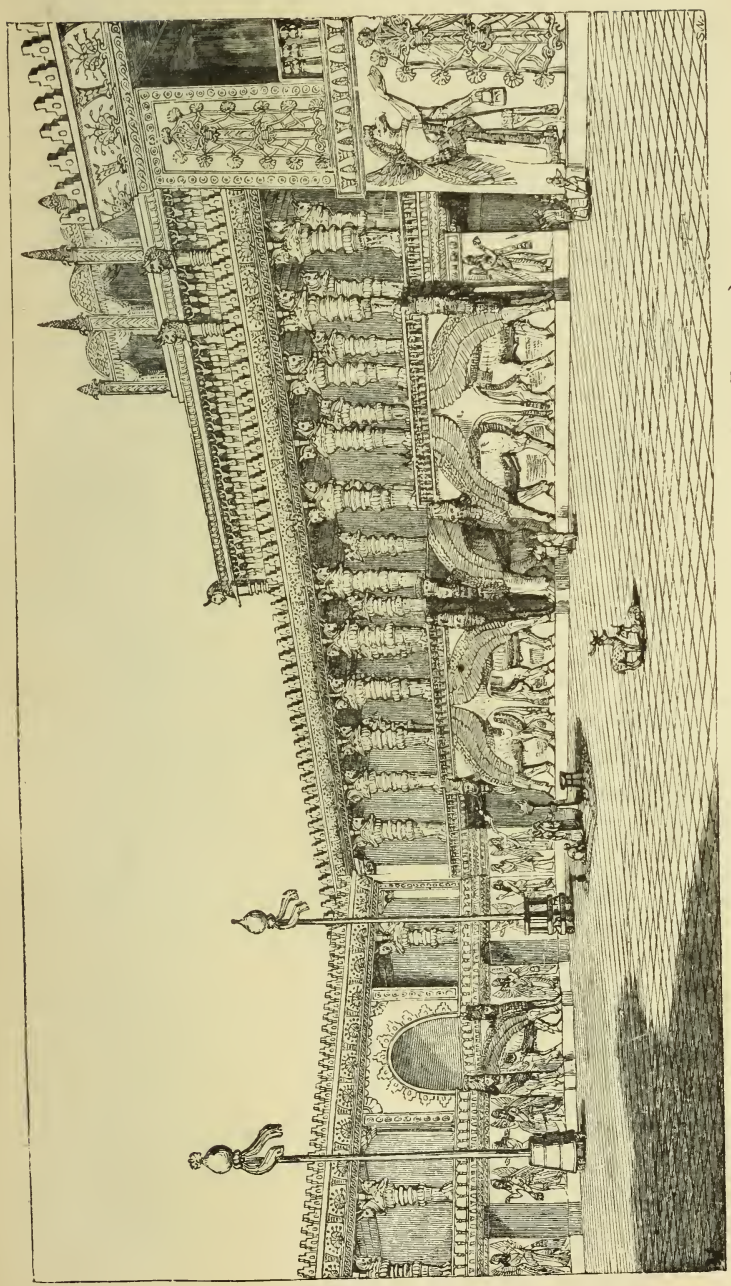
The great state apartments consisted of a suite of ten rooms. Five of these were halls of large dimensions; one was a long and somewhat narrow chamber, and the remaining four were square or slightly oblong apartments of minor consequence. All of them were lined throughout with sculptures. The most important seem to have been three halls *en suite* (VIII. V. and II. in the plan), which "are, both in their external and internal decorations, by far the most splendid of the whole palace."[1] The first lay just within the north-east façade, and ran parallel to it. It was entered by three doorways, the central one ornamented externally with two colossal bulls of the largest size, one on either side within the entrance, and with two pairs of smaller bulls, back to back, on the projecting pylons; the side ones guarded by winged genii, human or hawk-headed. The length of the chamber was 116 feet 6 inches, and its breadth 33 feet. Its sculptures represented the monarch receiving prisoners, and either personally or by deputy punishing them.[2] We may call it, for distinction's sake, "the Hall of Punishment."

King punishing prisoners, Khorsabad.

The second hall (V. in the plan) ran parallel with the first, but did not extend along its whole length. It measured from end to end about 86 feet, and from side to side 21 feet 6 inches. Two doorways led into it from the first chamber, and two others

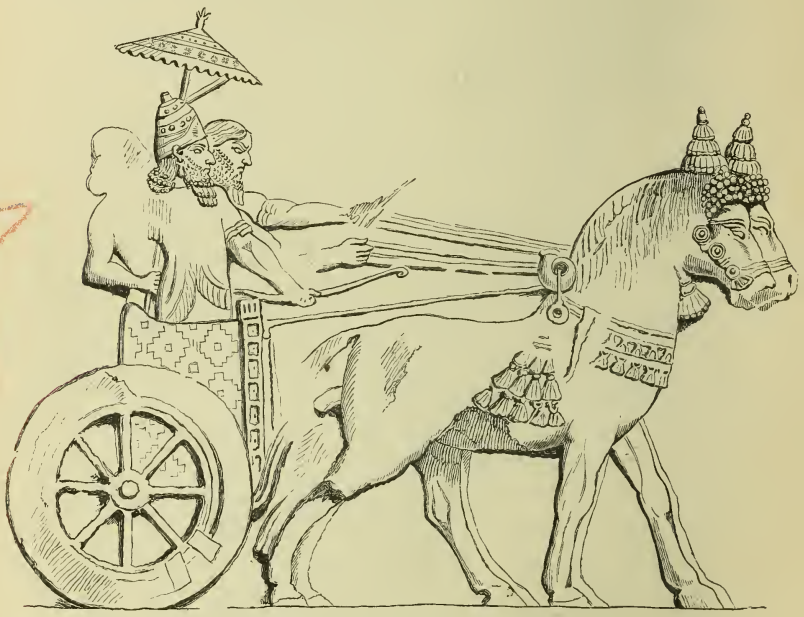
[1] *Palaces of Nineveh*, p. 261.

[2] In one case the monarch is in the act of driving a spear or javelin into the head of a captive with one hand, while with the other he holds him by a thong attached to a ring passed through his under lip. In another case an executioner flays a captive (or criminal) who is fastened to a wall.



North-West Court of Sargon's Palace at Khorsabad, restored. (After Fergusson.)

led from it into two large apartments. One communicated with a lateral hall (marked VI. in the plan), the other with the third hall of the suite which is here the special object of our attention. This third hall (II. in the plan) was of the same length as the first, but was less wide by about three feet. It opened by three doorways upon a square court, which has been called "the Temple Court," from a building on one side of it, which will be described presently.



Sargon in his war-chariot, Khorsabad.

The sculptures of the second and third halls represented in a double row, separated by an inscribed space about two feet in width, chiefly the wars of the monarch, his battles, sieges, reception of captives and of spoil, &c. The monarch himself appeared at least four times, standing in his chariot, thrice in calm procession, and once shooting his arrows against his enemies. Besides these, the upper sculptures on one side exhibited sacred ceremonies.

Placed at right angles to this primary suite of three halls were two others, one (IV. in the plan)[3] of dimensions little, if at all, inferior to those of the largest (No. VIII.), the other (VI. in the plan)[4] nearly of the same length, but as narrow as the narrowest of the three (No. V.). Of these two lateral halls the former communicated directly with No. VIII., and also by a narrow passage room (III. in the plan) with No. II. The other had direct communication both with No. II. and No. V., but none with No. VIII. With this hall (No. VI.) three smaller chambers were connected (Nos. IX. XI. and XII.); with the other lateral hall, two only (Nos. III. and VII.). One chamber attached to this block of buildings (I. in the plan) opened only on the Temple Court. It has been suggested that it contained a staircase;[5] but of this there is no evidence.

The Temple Court—a square of 180 feet—was occupied by buildings on three sides, and open on one only—that to the north-west. The state apartments closed it in on the north-east, the temple on the south-west; on the south-east it was bounded by the range of buildings called "Priests' Rooms" in the plan, chambers of less pretension than almost any that have been excavated. The principal façade here was that of the state apartments, on the north-east. On this, as on the opposite side of the palace, were three portals; but the two fronts were not of equal magnificence. On the side of the Temple Court a single pair of bulls, facing the spectator, guarded the middle portal; the side portals exhibited only figures of genii, while the spaces between the portals were occupied, not with bulls, but merely with a series of human figures, resembling those in the first or outer court, of which a representation has been already given. Two peculiarities marked the south-east façade. In the first place, it lay in a perfectly straight line, unbroken by any projection, which is very unusual in Assyrian architecture.

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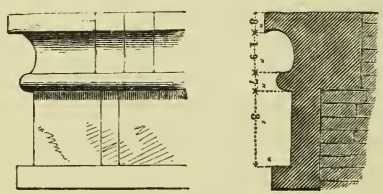
[3] This hall opened on the north-western terrace, and stood so near its edge that two of its sides have fallen. Internally it was adorned with a single row of sculptures, representing the king receiving prisoners.

[4] The sculptures here were all peaceable. The king occurred three times, with the sacred flower in his left hand, receiving presents or tribute.

[5] Fergusson's *Palaces*, p. 263.

In the second place, as if to compensate for this monotony in its facial line, it was pierced by no fewer than five doorways, all of considerable width, and two of them garnished with bulls, namely, the second and the fourth. The bulls of the second gateway were of the larger, those of the fourth were of the smaller size; they stood in the usual manner, a little withdrawn within the gateways and looking towards the spectator.

Of the curious building which closed in the court on the third or south-west side, which is believed to have been a temple,[6] the remains are unfortunately very slight. It stood so near the edge of the terrace that the greater part of it has fallen into the plain. Less than half of the ground-plan is left, and only a few feet of the elevation. The building may originally have been a square, or it may have been an oblong, as represented in the plan. It was approached from the court by a flight of stone steps, probably six in number, of which four remain in place. This flight of steps was placed directly opposite to the central door of the south-west palace façade. From the level of the court to that of the top of the steps, a height of about six feet, a solid platform of crude brick was raised as a basis for the temple; and this was faced, probably throughout its whole extent, with a solid wall of hard black basalt, ornamented with a cornice in grey limestone, of which the accompanying woodcuts are representations. Above this the external work has disappeared. Internally, two chambers may be traced, floored with a mixture of stones and chalk; and round one of these are some fragments of bas-reliefs, representing sacred subjects, cut on the same black basalt as that by which the platform is cased, and sufficient to show that the same style of ornamentation prevailed here as in the palace.



Cornice of temple, Khorsabad.

The principal doorway on the north-west side of the Temple

[6] Botta, *Monument de Ninive*, vol. v. p. 53; Fergusson, *Palaces of Nineveh*, p. 292; Layard, *Nineveh and Babylon*, p. 130.

Court communicated, by a passage, with another and similar doorway (*d* on the plan), which opened into a fourth court, the smallest and least ornamented of those on the upper platform. The mass of building, whereof this court occupied the centre, is believed to have constituted the *hareem* or private apartments of the monarch.[7] It adjoined the state apartments at its northern angle, but had no direct communication with them. To enter it from them the visitor had either to cross the Temple Court and proceed by the passage above indicated, or else to go round by the great entrance (X. in the plan) and obtain admission by the grand portals on the south-west side of the outer court. These latter portals, it is to be observed, are so placed as to command no view into the *Hareem* Court, though it is opposite to them. The passages by which they gave entrance into that court must have formed some such angles as those marked by the dotted lines in the plan, the result being that visitors, while passing through the outer court, would be unable to catch any sight of what was going on in the *Hareem* Court, even if the great doors happened to be open. Those admitted so far into the palace as the Temple Court were more favoured or less feared. The doorway (*d*) on the south-east side of the *Hareem* Court is exactly opposite the chief doorway on the north-west side of the Temple Court, and there can be no reasonable doubt that a straight passage connected the two.

It is uncertain whether the *Hareem* Court was surrounded by buildings on every side, or open towards the south-west. M. Botta believed that it was open;[8] and the analogy of the other courts would seem to make this probable. It is to be regretted, however, that this portion of the great Khorsabad ruin still remains so incompletely examined. Consisting of the private apartments, it is naturally less rich in sculptures than other parts; and hence it has been comparatively neglected. The labour would, nevertheless, be well employed which should be devoted to this part of the ruin, as it would give us (what we do not now possess) the *complete* ground-plan of an Assyrian palace. It is

[7] Fergusson, *Palaces of Nineveh*, p. 254; Layard, *Nineveh and Babylon*, p. 646.
[8] *Monument de Ninive*, vol. v. p. 42; and compare the plan, vol. i. pl. 6.

earnestly to be hoped that future excavators will direct their efforts to this easily attainable and interesting object.

The ground-plans of the palaces, and some sixteen feet of their elevations, are all that fire and time have left us of these remarkable monuments. The total destruction of the upper portion of every palatial building in Assyria, combined with the want of any representation of the royal residences upon the bas-reliefs, reduces us to mere conjecture with respect to their height, to the mode in which they were roofed and lighted, and even to the question whether they had or had not an upper story. On these subjects various views have been put forward by persons entitled to consideration; and to these it is proposed now to direct the reader's attention.

In the first place, then, had they an upper story? Mr. Layard and Mr. Fergusson decide this question in the affirmative. Mr. Layard even goes so far as to say that the fact is one which "can no longer be doubted."[9] He rests this conclusion on two grounds—first, on a belief that "upper chambers" are mentioned in the Inscriptions, and secondly, on the discovery by himself, in Sennacherib's palace at Koyunjik, of what seemed to be an inclined way, by which he supposes that the ascent was made to an upper story. The former of these two arguments must be set aside as wholly uncertain. The interpretation of the architectural inscriptions of the Assyrians is a matter of far too much doubt at present to serve as a groundwork upon which theories can properly be raised as to the plan of their buildings. With regard to the inclined passage, it is to be observed that it did not appear to what it led. It may have conducted to a gallery looking into one of the great halls, or to an external balcony overhanging an outer court; or it may have been the ascent to the top of a tower, whence a look-out was kept up and down the river. Is it not more likely that this ascent should have been made for some exceptional purpose, than that it should be the only specimen left of the ordinary mode by which one half of a palace was rendered accessible? It is to be remembered that

[9] *Nineveh and Babylon*, p. 650.

no remains of a staircase, whether of stone or of wood, have been found in any of the palaces, and that there is no other instance in any of them even of an inclined passage.[1] Those who think the palaces had second stories, believe these stories to have been reached by staircases of wood, placed in various parts of the buildings, which were totally destroyed by the conflagrations in which the palaces perished. But it is at least remarkable that no signs have been found in any existing walls of rests for the ends of beams, or of anything implying staircases. Hence M. Botta, the most careful and the most scientific of recent excavators, came to a very positive conclusion that the Khorsabad buildings had had no second story,[2] a conclusion which it would not, perhaps, be very bold to extend to Assyrian edifices generally.

It has been urged by Mr. Fergusson that there *must* have been an upper story because, otherwise, all the advantage of the commanding position of the palaces, perched on their lofty platforms, would have been lost.[3] The platform at Khorsabad was protected, in the only places where its edge has been laid bare, by a stone wall or parapet *six feet in height*. Such a parapet continued along the whole of the platform would effectually have shut out all prospect of the open country both from the platform itself, and also from the gateways of the palace, which are on the same level. Nor could there well be any view at all from the ground-chambers, which had no windows, at any rate within fifteen feet of the floor. To enjoy a view of anything but the dead wall skirting the mound, it was necessary (Mr. Fergusson thinks) to mount to a second story, which he ingeniously places, not over the ground-rooms, but on the top of the outer and party walls, whose structure is so massive that their area falls (he observes) but little short of the area of the ground-rooms themselves.[4]

This reasoning is sufficiently answered, in the first place, by observing that we do not know whether the Assyrians appreciated

[1] The inclined passage of Asshur-banipal's palace at Koyunjik was not *in* the palace, but led from the level of the city up to it.

[2] *Monument de Ninive*, vol. v. p. 62.

[3] *Palaces of Nineveh*, p. 275.

[4] Ibid.

the advantage of a view or raised their palace platforms for any such object. They may have constructed them for security only, or for greater dignity and greater seclusion. They may have looked chiefly to comfort, and have reared them in order to receive the benefit of every breeze, and at the same time to be above the elevation to which gnats and mosquitoes commonly rise.[5] Or there may be a fallacy in concluding, from the very slight data furnished by the excavations of M. Botta,[6] that a palace platform was, in any case, skirted along its whole length by a six-foot parapet. Nothing is more probable than that in places the Khorsabad parapet may have been very much lower than this; and elsewhere it is not even ascertained that any parapet at all edged the platform. On the whole we seem to have no right to conclude, merely on account of the small portions of parapet wall uncovered by M. Botta, that an upper story was a necessity to the palaces. If the Assyrians valued a view, they may easily have made their parapets low in places: if they cared so little for it as to shut it out from all their halls and terraces, they may not improbably have dispensed with the advantage altogether.

The two questions of the roofing and lighting of the Assyrian palaces are so closely connected together that they will most conveniently be treated in combination. The first conjecture published on the subject of the roofing was that of M. Flandin, who suggested that the chambers generally—the great halls, at any rate—had been ceiled with a brick vault. He thought that the complete filling up of the apartments to the height of fifteen or twenty feet was thus best explained; and he believed that there were traces of the fallen vaulting in the *débris* with which the apartments were filled. His conjecture was combated, soon after he put it forth, by M. Botta,[7] who gave it as his opinion—first, that the walls of the chambers, notwithstanding their great thickness, would have been unable, considering their

[5] That this was one of the objects held in view by the Babylonians when they erected their Temple platforms, is conjectured by M. Fresnel. (*Journal Asiatique*, Juin 1853, pp. 528–531.)

[6] The parapet wall was observed at most in two places. (See the shaded parts, marked *a a* on the plan, p. 281.)

[7] *Monument de Ninive*, vol. v. pp. 65–67.

material, to sustain the weight, and (still more to bear) the lateral thrust, of a vaulted roof; and, secondly, that such a roof, if it had existed at all, must have been made of baked brick or stone—crude brick being too weak for the purpose—and when it fell must have left ample traces of itself within the apartments, whereas, in none of them, though he searched, could he find any such traces. On this latter point M. Botta and M. Flandin—both eye-witnesses—were at variance. M. Flandin believed that he had seen such traces, not only in numerous broken fragments of burnt brick strewn through all the chambers, but in occasional masses of brickwork contained in some of them—actual portions, as he thought, of the original vaulting. M. Botta, however, observed—first, that the quantity of baked brick within the chambers was quite insufficient for a vaulted roof; and, secondly, that the position of the masses of brickwork noticed by M. Flandin was always towards the sides, never towards the centres of the apartments; a clear proof that they had fallen from the upper part of the walls above the sculptures, and not from a ceiling covering the whole room. He further observed that the quantity of charred wood and charcoal within the chambers, and the calcined appearance of all the slabs, were phenomena incompatible with any other theory than that of the destruction of the palace by the conflagration of a roof mainly of wood.[8]

To these arguments of M. Botta may be added another from the improbability of the Assyrians being sufficiently advanced in architectural science to be able to construct an arch of the width necessary to cover some of the chambers. The principle of the arch was, indeed, as will be hereafter shown,[9] well known to the Assyrians; but hitherto we possess no proof that they were capable of applying it on a large scale. The widest arch which has been found in any of the buildings is that of the Khorsabad town-gate uncovered by M. Place,[10] which spans a space of (at most) fourteen or fifteen feet. But the great halls of the Assyrian

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[8] *Monument de Ninive*, vol. v. p. 68.
[9] Infra, pp. 327–330.
[10] *Journal Asiatique*, Rapport de M. Mohl pour Août 1853, p. 150; Fergusson, *Handbook of Architecture*, p. 173.

palaces have a width of twenty-five, thirty, and even forty feet. It is at any rate uncertain whether the constructive skill of their architects could have grappled successfully with the difficulty of throwing a vault over so wide an interval as even the least of these.

M. Botta, after objecting, certainly with great force, to the theory of M. Flandin, proceeded to suggest a theory of his own. After carefully reviewing all the circumstances, he gave it as his opinion that the Khorsabad building had been roofed throughout with a flat, earth-covered roofing of wood. He observed that some of the buildings on the bas-reliefs had flat roofs, that flat roofs are still the fashion of the country, and that the *débris* within the chambers were exactly such as a roof of that kind would be likely, if destroyed by fire, to have produced.[1] He further noticed that on the floors of the chambers in various parts of the palace, there had been discovered stone rollers, closely resembling those still in use at Mosul and Baghdad, for keeping close-pressed and hard the earthen surface of such roofs; which rollers had, in all probability, been applied to the same use by the Assyrians, and, being kept on the roofs, had fallen through during the conflagration.[2]

The first difficulty which presented itself here was one of those regarded as most fatal to the vaulting theory, namely, the width of the chambers. Where flat timber roofs prevail in the East, their span seems never to exceed twenty-five feet.[3] The ordinary chambers in the Assyrian palaces might, undoubtedly, therefore, have been roofed in this way, by a series of horizontal beams laid across them from side to side, with the ends resting upon the tops of the side walls. But the great halls seemed too wide to have borne such a roofing without supports. Accordingly, M. Botta suggested that in the greater apartments a single or a double row of pillars ran down the middle, reaching to the roof and sustaining it.[4] His theory was afterwards warmly embraced by Mr. Fergusson, who endeavoured to point out the exact position of the pillars in the three great halls of Sargon at

[1] *Monument de Ninive*, vol. v. pp. 71, 72. [2] Ibid. p. 72.
[3] Fergusson, *Palaces of Nineveh*, p. 276. [4] *Monument*, &c., vol. v. p. 69.

Khorsabad.[5] It seems, however, a strong and almost a fatal objection to this theory, that no bases of pillars have been found within the apartments, nor any marks on the brick floors of such bases or of the pressure of the pillars. M. Botta states that he made a careful search for bases, or for marks of pillars, on the pavement of the north-east hall (No. VIII.) at Khorsabad, but that he *entirely failed to discover any*.[6] This negative evidence is the more noticeable as stone pillar-bases have been found in wide doorways, where they would have been less necessary than in the chambers, as pillars in doorways could have had but little weight to sustain.

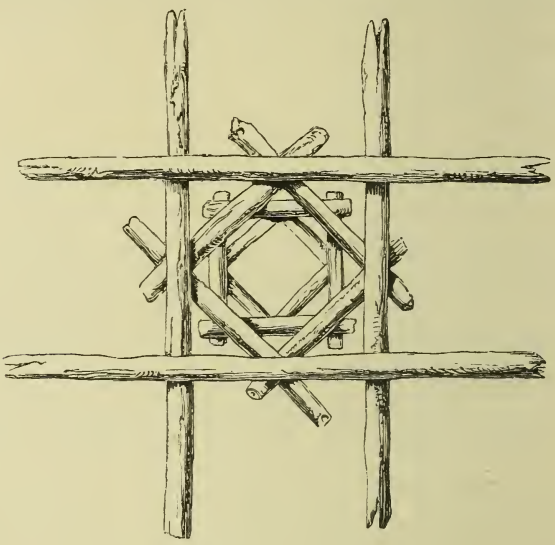
M. Botta and Mr. Fergusson, who both suppose that in an Assyrian palace the entire edifice was roofed in, and only the courts left open to the sky, suggest two very different modes by which the buildings may have been lighted. M. Botta brings light in from the roof by means of wooden *louvres*, such as are still employed for the purpose in Armenia and parts of India,[7] whereof he gives the representation which is reproduced on the next page. Mr. Fergusson introduces light from the sides, by supposing that the roof did not rest directly on the walls, but on rows of wooden pillars placed along the edge of the walls both internally towards the apartments and externally towards the outer air. The only

[5] *Palaces of Nineveh*, p. 262; *Handbook of Architecture*, p. 171.

[6] *Monument de Ninive*, p. 70. Compare Layard, *Nineveh and Babylon*, pp. 649, 650. It must further be noted, as throwing considerable doubt on the whole spirit of Mr. Fergusson's Assyrian restorations, that their essence consists in giving a thoroughly columnar character, both internally and externally, to Assyrian buildings, whereas one of the most remarkable features in the remains is the almost entire absence of the column. A glance at the restoration already given from Mr. Fergusson (supra, p. 293), or at that, by the same ingenious gentleman, which forms the frontispiece to Mr. Layard's *Nineveh and Babylon*, will show the striking difference, and (as it seems to me) the want of harmony in his restorations between the basement story of a palace, which is all that we can reconstruct with any certainty, and the entire remainder of the edifice. Mr. Fergusson supports his view that the column was really thus prominent in Assyrian buildings by the analogy of Susa and Persepolis; but the columnar edifices at those places are on an entirely different plan from that of an Assyrian palace. Those buildings had no solid walls at all (Loftus, *Chaldæa and Susiana*, pp. 374, 375), but lay entirely open to the air; they were mere groves of pillars supporting a flat roof—convenient summer residences. The evidence of the remains seems to be that there was a strong contrast between Assyrian and Persian architecture, the latter depending almost wholly on the column, and elaborating it as much as possible; the former scarcely allowing the column at all, and leaving it almost in its primitive condition of a mere post. (See below, p. 310.)

[7] Fergusson, *Palaces of Nineveh*, p. 269.

ground for this supposition, which is of a very startling character, seems to be the occurrence in a single bas-relief, representing a city in Armenia, of what is regarded as a similar arrangement. But it must be noted that the lower portion of the building, represented opposite, bears no resemblance at all to the same part of an Assyrian palace, since in it perpendicular lines prevail, whereas, in the Assyrian palaces, the lower lines were almost wholly horizontal; and that it is not even certain that the upper portion, where the pillars occur, is an arrangement for admitting light, since it may be merely an ornamentation.

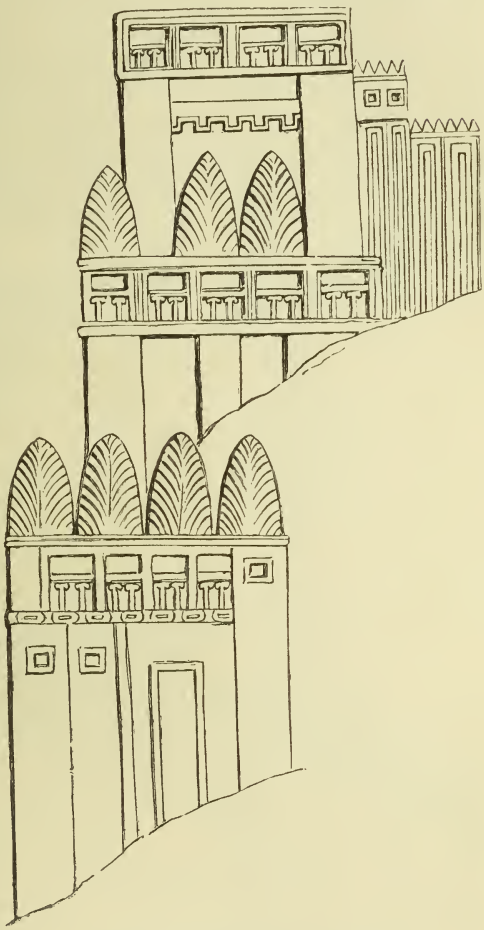


Armenian *louvre* (after Botta).

The difficulties attaching to every theory of roofing and lighting which places the whole of an Assyrian palace under covert, has led some to suggest that the system actually adopted in the larger apartments was that *hypæthral* one which is generally believed to have prevailed in the Greek temples,[8] and

[8] Mr. Fergusson disallows the hypæthral system even here (*True Principles of Beauty*, p. 381); but later writers do not seem converted by his arguments. (See the article on TEMPLUM in Smith's *Dictionary of Greek and Roman Antiquities*, p. 1105, 2nd edition; and compare Mr. Falkener's *Dædalus*, Introduction, pp. 18–20.)

which was undoubtedly followed in the ordinary Roman house. Mr. Layard was the first to put forward the view that the larger halls, at any rate, were uncovered, a projecting ledge, sufficiently wide to afford shelter and shade, being carried round the four sides of the apartment, while the centre remained open to the sky.[9] The objections taken to this view are —first, that far too much heat and light would thereby have been admitted into the palace; secondly, that in the rainy season far too much rain would have come in for comfort; and, thirdly, that the pavement of the halls, being mere sun-dried brick, would, under such circumstances, have been turned into mud.[1] If these objections are not removed, they would be, at any rate, greatly lessened by supposing the roofing to have extended to two-thirds or three-fourths of the apartment, and the opening to



Armenian buildings (from Koyunjik).

[9] *Nineveh and its Remains*, vol. i. p. 259. Compare *Nineveh and Babylon*, p. 647; and see also the restoration of an Assyrian interior in his *Monuments of Nineveh*, 1st series, Pl. 2, from which the illustration overleaf is taken.

[1] Fergusson, *Palaces of Nineveh*, p. 270.

Interior of an Assyrian Palace, restored (after Layard).

have been comparatively narrow. We may also suppose that on very bright and on very rainy days carpets or other awnings were stretched across the opening, which furnished a tolerable defence against the weather.

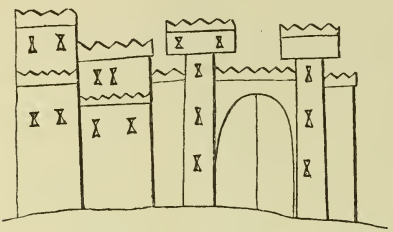
On the whole, our choice seems to lie—so far as the great halls are concerned—between this theory of the mode in which they were roofed and lighted, and a supposition from which archæologists have hitherto shrunk, namely, that they were actually spanned from side to side by beams. If we remember that the Assyrians did not content themselves with the woods produced in their own country, but habitually cut timber in the forests of distant regions, as for instance of Amanus, Hermon, and Lebanon, which they conveyed to Nineveh, we shall perhaps not think it impossible that they may have been able to accomplish the feat of roofing in this simple fashion even chambers of thirteen or fourteen yards in width. Mr. Layard observes that rooms of *almost* equal width with the Assyrian halls are to this day covered in with beams laid horizontally from side to side in many parts of Mesopotamia, although the only timber used is that furnished by the indigenous palms and poplars.[2] May not more have been accomplished in this way by the Assyrian architects, who had at their disposal the lofty firs and cedars of the above-mentioned regions?

If the halls were roofed in this way, they may have been lighted by *louvres*;[3] or the upper portion of the walls, which is now destroyed, may have been pierced by windows, which are of frequent occurrence, and seem generally to be somewhat high placed, in the representations of buildings upon the sculptures. (See overleaf.)

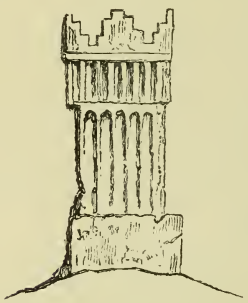
It might have been expected that the difficulties with respect to Assyrian roofing and lighting which have necessitated this long discussion, would have received illustration, or even solution from the forms of buildings which occur so frequently on the bas-reliefs. But this is not found to be the actual result. The forms are rarely Assyrian, since they occur commonly

[2] *Nineveh and its Remains*, vol. ii. pp. 259, 260.
[3] Such as that represented above, p. 304.

in the sculptures which represent the foreign campaigns of the kings; and they have the appearance of being to a great extent conventional, being nearly the same, whatever country is the object of attack. In the few cases where there is ground for regarding the building as native and not foreign, it is never palatial, but belongs either to sacred or to domestic architecture. Thus the monumental representations of Assyrian buildings which have come down to us, throw little or no light on the construction of their palaces. As, however, they have an interest of their own, and will serve to illustrate in some degree the domestic and sacred architecture of the people, some of the most remarkable of them will be here introduced.



Assyrian castle (Nimrud obelisk).



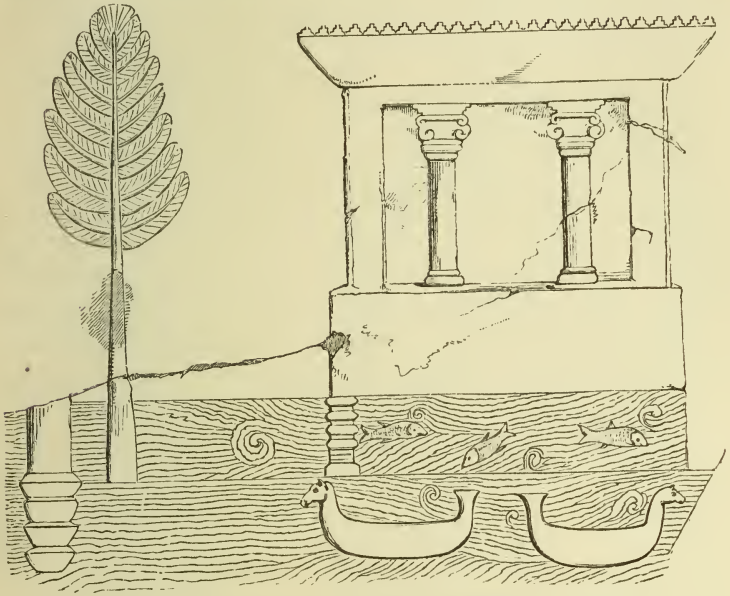
No. I.—Assyrian altar (?), from a bas-relief, Khorsabad.

The representation No. I. is from a slab at Khorsabad. It is placed on the summit of a hill, and is regarded by M. Botta as an altar. No. II. is from the same slab. It stands at the foot of the hill crowned by No. I. It has been called a "fishing pavilion;"[4] but it is most probably a small temple, since it bears a good deal of resemblance to other representations which are undoubted temples, as (particularly) to No. V. (p. 310). No. III., which is from Lord Aberdeen's black stone, is certainly a temple, since it is accompanied by a priest, a sacred tree, and an ox for sacrifice.[5] The representation No. IV. is also thought to be a temple. It is of earlier date than any of

[4] Fergusson, *Handbook of Architecture*, p. 179.

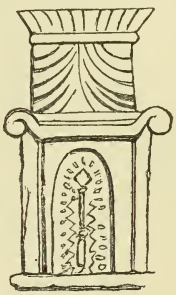
[5] See the representation in Mr. Fergusson's *Palaces of Nineveh Restored*, p. 298. This black stone is of the time of Esar-haddon.

the others, being taken from a slab belonging to the North-west Palace at Nimrud, and is remarkable in many ways. First, the



No. II.—Assyrian temple (Khorsabad).

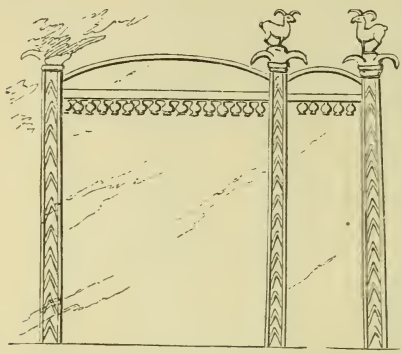
want of symmetry is curious, and unusual. Irregular as are the palaces of the Assyrian kings, there is for the most part no want of regularity in their sacred buildings. The two specimens here adduced (No. II. and No. III.) are proof of this; and such remains of actual temples as exist are in accordance with the sculptures in this particular. The right-hand aisle in No. IV., having nothing correspondent to it on the other side, is thus an anomaly in Assyrian sacred architecture. The patterning of the pillars with chevrons is also remarkable; and their capitals are altogether unique.[6] No. V. is a temple of a more elaborate character. It is from the sculptures



No. III.—Assyrian temple, from Lord Aberdeen's black stone.

[6] On this point, see below, pp. 333, 334.

of Asshur-bani-pal, the son of Esar-haddon, and possesses several features of great interest. The body of the temple is a columnar structure, exhibiting at either corner a broad pilaster surmounted by a capital composed of two sets of volutes placed one over the other. Between the two pilasters are two pillars resting upon very extraordinary rounded bases, and crowned by capitals not unlike the Corinthian. We might have supposed the bases mere figments of the sculptor, but for an independent evidence of the actual employment by the Assyrians of rounded pillar-bases. Mr. Layard discovered at Koyunjik a set of "circular pedestals," whereof he gives the

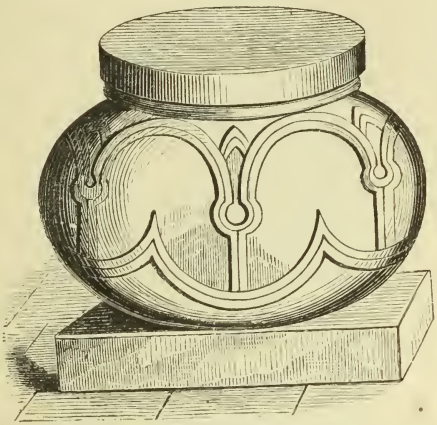


No. IV.—Assyrian temple (Nimrud).

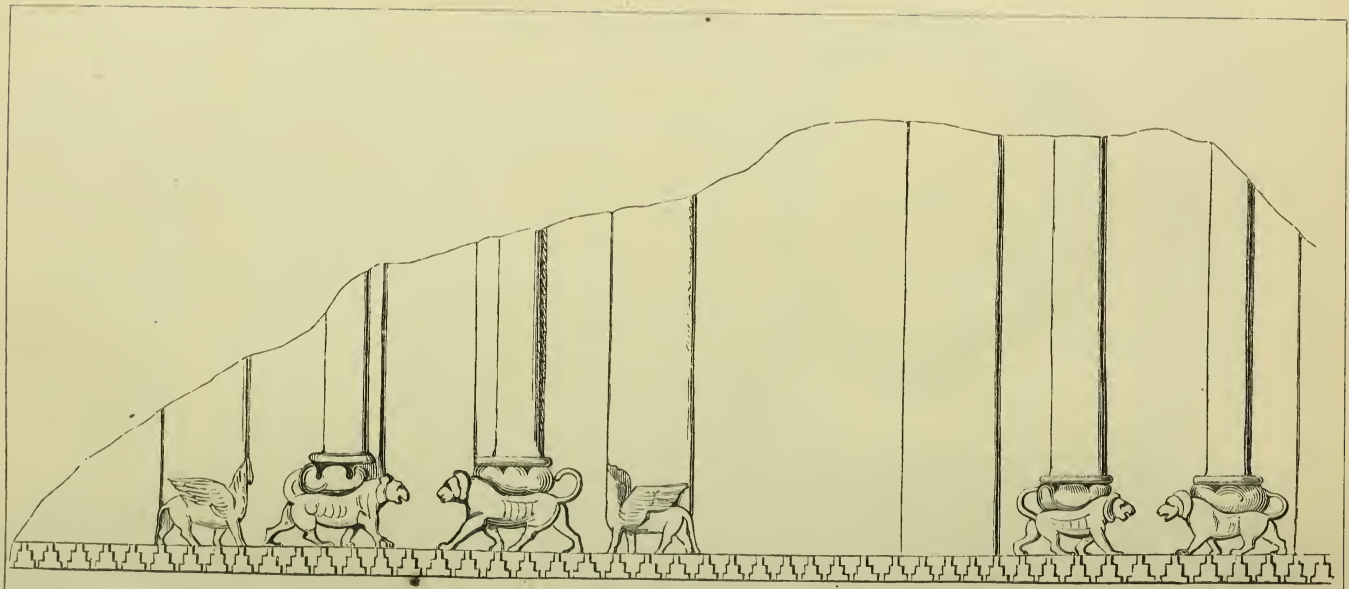
No V.—Assyrian temple (North Palace, Koyunjik).

representation which is figured on the next page. They appeared to form part of a double line of similar objects, extending from the edge of the platform to an entrance of the palace, and probably (as Mr. Layard suggests) supported the wooden pillars of a

covered way by which the palace was approached on this side. Above the pillars the temple (No. V.) exhibits a heavy cornice or entablature projecting considerably, and finished at the top with a row of gradines. (Compare No. II.) At one side of this main building is a small chapel or oratory, also finished with gradines, against the wall of which is a representation of a king, standing in a species of frame arched at the top. A road leads straight up to this royal tablet, and in this road within a little distance of the king stands an altar. The temple occupies the top of a mound, which is covered with trees of two different kinds, and watered by rivulets. On the right is a "hanging garden," artificially elevated to the level of the temple by means of masonry supported on an arcade, the arch here used being not the round arch but a pointed one. No. VI. (overleaf) is unfortunately very imperfect, the entire upper portion having been lost. Even, however, in its present mutilated state it represents by far the most magnificent building that has yet been found upon the bas-reliefs. The façade, as it now stands, exhibits four broad pilasters and four pillars, alternating in pairs, excepting that, as in the smaller temples, pilasters occupy both corners. In two cases, the base of the pilaster is carved into the figure of a winged bull, closely resembling the bulls which commonly guarded the outer gates of palaces. In the other two the base is plain—a piece of negligence, probably, on the part of the artist. The four pillars all exhibit a rounded base, nearly though not quite similar to that of the pillars in No. V.; and this rounded base in every case rests upon the back of a walking lion. We might perhaps have imagined that

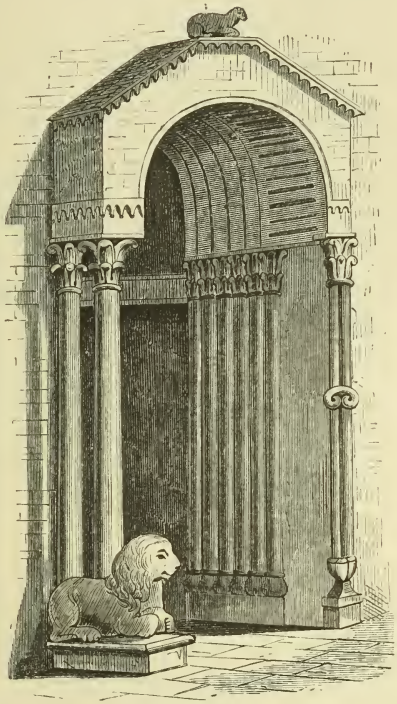


Circular pillar-base, Koyunjik (after Layard).



No. VI.—Basement portion of an Assyrian temple (North Palace, Koyunjik).

this was a mere fanciful or mythological device of the artist's, on a par with the representations at Bavian, where figures, supposed to be Assyrian deities, stand upon the backs of animals resembling dogs.[7] But one of M. Place's architectural discoveries seems to make it possible, or even probable, that a real feature in Assyrian building is here represented. M. Place found the arch of the town gateway, which he exhumed at Khorsabad, to spring from the backs of the two bulls which guarded it on either side.[8] Thus the lions at the base of the pillars may be real architectural forms, as well as the winged bulls which support the pilasters. The lion was undoubtedly a sacred animal, emblematic of divine power, and specially assigned to Nergal, the Assyrian Mars, the god at once of war and of hunting. His introduction on the exteriors of buildings was common in Asia Minor; but no other example occurs of his being made to support a pillar, excepting in the so-called Byzantine architecture of Northern Italy.



Porch of the Cathedral, Trent.

No. VII *a*. (overleaf) introduces us to another kind of Assyrian temple, or perhaps it should rather be said to another feature of Assyrian temples—common to them with Babylonian

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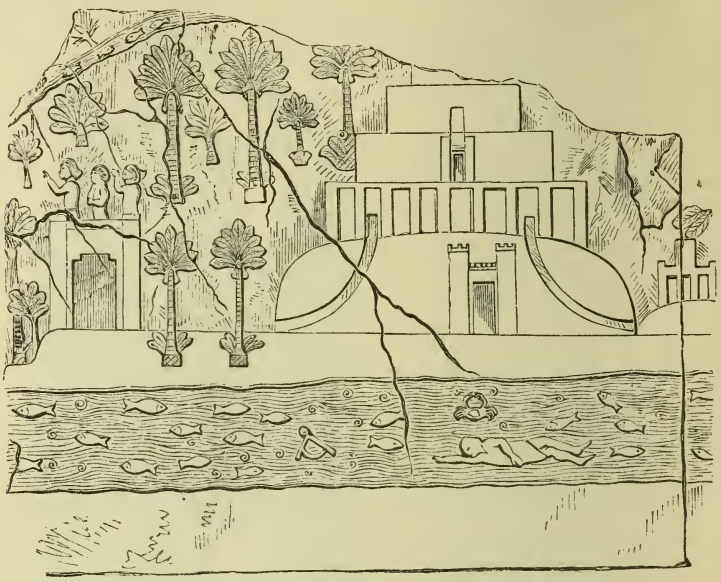
[7] See Layard's *Monuments of Nineveh*, 2nd series, Pl. 51; and compare *Nineveh and Babylon*, p. 208. A similar treatment of divine figures is common upon the Cylinders. (See Cullimore's *Cylinders*, Nos. 19, 20, 30, 55, 96, &c.) It is found likewise in Cappadocia. (See Van Lennep's *Travels in Little Known parts of Asia Minor*, vol. ii. p. 118.

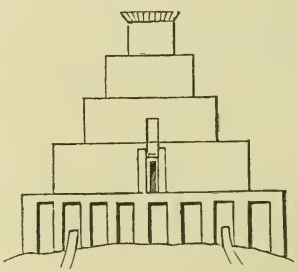
[8] *Journal Asiatique*, Août 1853, p. 150; Fergusson, *Handbook of Architecture*, vol. i. p. 173.

—the tower or *ziggurat*. This appears to have been always built in stages, which probably varied in number—never, however, so far as appears, exceeding seven. The sculptured



No. VII *a*.—Tower of a temple, Koyunjik (after Layard).

example before us, which is from a bas-relief found at Koyunjik, distinctly exhibits four stages, of which the topmost, owing to the destruction of the upper portion of the tablet, is imperfect. It is not unlikely that in this instance there was above the fourth a fifth stage, consisting of a shrine like that which at Babylon crowned the great temple of Belus.[9] The complete elevation would then have been nearly as in No. VII *b*.

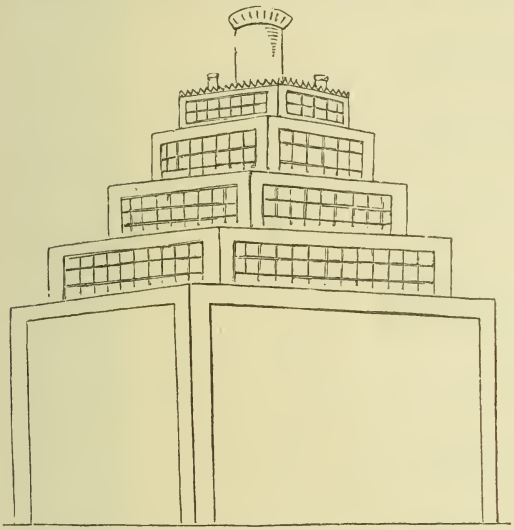


No. VII *b*.—Tower of temple (restored.)

The following features are worthy of remark in this temple. The basement story is panelled with indented rectangular

[9] Herod. i. 181.

recesses, as was the case at Nimrud,[1] and at the Birs;[2] the remainder are plain, as are most of the stages in the Birs temple. Up to the second of these squared recesses on either side there runs what seems to be a road or path, which sweeps away down the hill whereon the temple stands in a bold curve, each path closely matching the other. The whole building is perfectly symmetrical, except that the panelling is not quite uniform in width nor arranged quite regularly. On the second

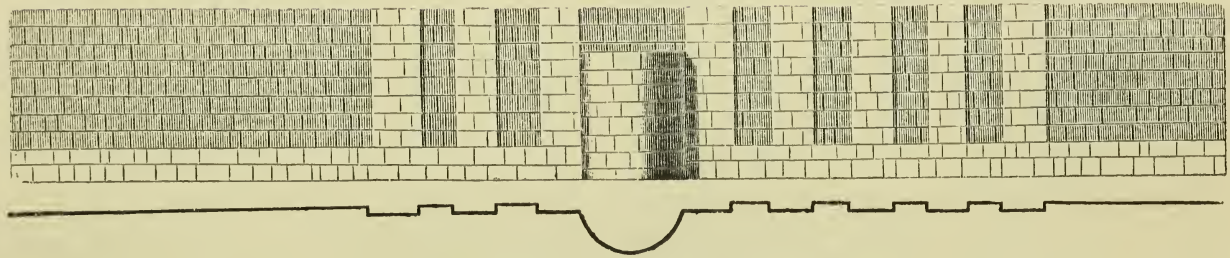


Tower of Great Temple at Nimrud (after Layard).

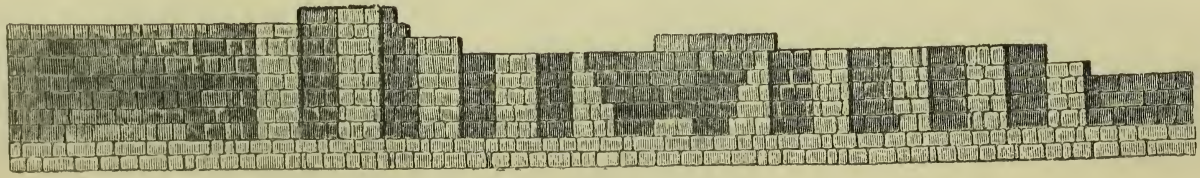
stage, exactly in the middle, there is evidently a doorway, and on either side of it a shallow buttress or pilaster. In the centre of the third story, exactly over the doorway of the second, is a squared niche. In front of the temple, but not exactly opposite its centre, may be seen the propylæa, consisting of a squared doorway placed under a battlemented wall, between two towers also battlemented. It is curious that the paths do not lead to the propylæa, but seem to curve round the hill.

Remains of *ziggurats* similar to this have been discovered at Khorsabad, at Nimrud, and at Kileh-Sherghat. The conical

[1] See the illustration, overleaf.
[2] *Journal of the Asiatic Society*, vol. xvii. p. 13.



Basement of Temple-tower, Nimrud, North side (after Layard).



Basement of the same, West side (also after Layard).

mound at Khorsabad explored by M. Place was found to contain a tower in seven stages;[3] that of Nimrud, which is so striking an object from the plain,[4] and which was carefully examined by Mr. Layard, presented no positive proof of more than a single stage; but, from its conical shape, and from the general analogy of such towers, it is believed to have had several stages. Mr. Layard makes their number five, and crowns the fifth with a circular tower terminating in a heavy cornice;[5] but for this last there is no authority at all, and the actual number of the stages is wholly uncertain. The base of this *ziggurat* was a square, 167 feet 6 inches each way, composed of a solid mass of sun-dried brick, faced at bottom to the height of twenty feet with a wall of hewn stones, more than eight feet and a half in thickness. The outer stones were bevelled at the edges, and on the two most conspicuous sides the wall was ornamented with a series of shallow recesses (see opposite page), arranged without very much attention to regularity. The other two sides, one of which abutted on and was concealed by the palace mound, while the other faced towards the city, were perfectly plain. At the top of the stone masonry was a row of gradines, such as are often represented in the sculptures as crowning an edifice.[6] Above the stone masonry the tower was continued at nearly the same width, the casing of stone being simply replaced by one of burnt brick of inferior thickness. It is supposed that the upper stages were constructed in the same way. As the actual present height of the ruin is 140 feet, and the upper stages have so entirely crumbled away, it can scarcely be supposed that the original height fell much short of 200 feet.[7]

The most curious of the discoveries made during the examination of this building, was the existence in its interior of a species of chamber or gallery, the true object of which still remains wholly unexplained. This gallery was 100 feet long, 12 feet high, and no more than six feet broad. It was arched or

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[3] Fergusson, *Handbook of Architecture*, p. 172. I have been unable to obtain any detailed account of this building.

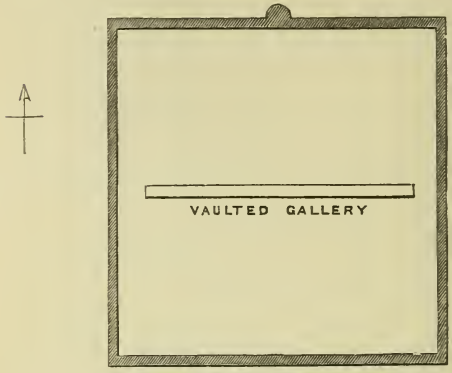
[4] Supra, p. 202.

[5] *Nineveh and Babylon*, plan opp. p. 123; *Monuments of Nineveh*, 2nd series, frontispiece. (See the woodcut, p. 315.)

[6] See woodcut No. V. on p. 310.

[7] Layard, *Nineveh and Babylon*, p. 129; comp. Diod. Sic. ii. 7.

vaulted at top, both the side walls and the vaulting being of sun-dried brick. Its position was exactly half-way between the tower's northern and southern faces, and with these it ran parallel, its height in the tower being such that its floor was exactly on a level with the top of the stone masonry, which again was level with the terrace or platform, whereupon the Nimrud palaces stood. There was no trace of any way by which the gallery was intended to be entered; its walls showed no signs of inscription, sculpture, or other ornament; and absolutely nothing was found in it. Mr. Layard, prepossessed with an opinion derived from several confused notices in the classical writers,[8] believed the tower to be a sepulchral monument, and the gallery to be the tomb in which was originally deposited "the embalmed body of the king."[9] To account for the complete disappearance, not only of the body, but of all the ornaments and vessels found commonly in the Mesopotamian tombs, he suggested that the gallery had been rifled in times long anterior to his visit; and he thought that he found traces, both internally and externally, of the tunnel by which it had

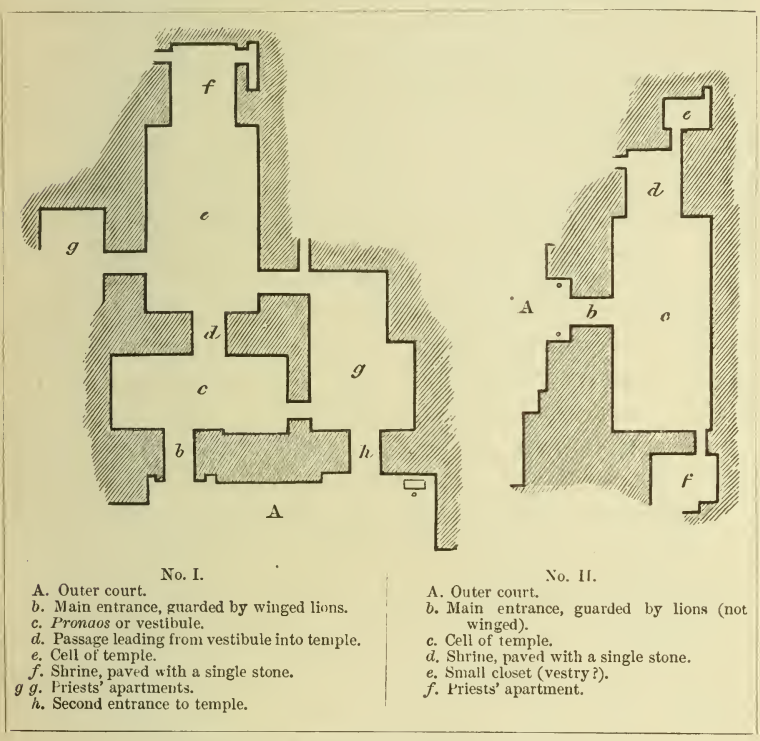


Ground Plan of Nimrud Tower.

[8] Xenophon and Ctesias both noticed this remarkable edifice. (*Anab.* iii. 4, § 9.) Xenophon calls it a "pyramid," but shows that it more resembled a tower by saying that its height (200 ft.) was double its width at the base, which he estimates at 100 ft. He gives no account of the purpose for which it was intended. Ctesias, who enormously exaggerates its size, making it 10 stadia wide and 9 stadia (more than a mile!) high, was the first to give it a sepulchral character. He said that it was built by Semiramis over the body of her husband, Ninus. He placed it, however, if we may believe Diodorus (ii. 7), at Nineveh, and upon the Euphrates! Next to these writers, Amyntas, one of the historians of Alexander, noticed the edifice. He called it the tomb of Sardanapalus; and, like Ctesias, placed it at Nineveh (ap. Athen. *Deipn.* xii. 4, § 11). Ovid no doubt intended the same building by his "busta Nini," which, however, according to him, lay in the vicinity of Babylon (*Metamorph.* iv. 88).

[9] *Nineveh and Babylon*, p. 128.

been entered. But certainly, if this long and narrow vault was intended to receive a body, it is most extraordinarily shaped for the purpose. What other sepulchral chamber is there anywhere of so enormous a length? Without pretending to say what the real object of the gallery was,[1] we may feel tolerably sure that it was not a tomb. The building which contained it



No. I.

A. Outer court.
b. Main entrance, guarded by winged lions.
c. *Pronaos* or vestibule.
d. Passage leading from vestibule into temple.
e. Cell of temple.
f. Shrine, paved with a single stone.
g g. Priests' apartments.
h. Second entrance to temple.

No. II.

A. Outer court.
b. Main entrance, guarded by lions (not winged).
c. Cell of temple.
d. Shrine, paved with a single stone.
e. Small closet (vestry?).
f. Priests' apartment.

Ground Plans of Temples, Nimrud (after Layard).

was a temple-tower, and it is not likely that the religious feelings of the Assyrians would have allowed the application of a religious edifice to so utilitarian a purpose.

Besides the *ziggurat* or tower, which may commonly have been surmounted by a chapel or shrine, an Assyrian temple had always a number of basement chambers, in one of which

[1] It may perhaps have had a religious bearing; and similar galleries may perhaps exist under all temple-towers.

was the principal shrine of the god. This was a square or slightly oblong recess at the end of an oblong apartment, raised somewhat above its level; it was paved (sometimes, if not always) with a single slab, the weight of which must occasionally have been as much as thirty tons.[2] One or two small closets opened out from the shrine, in which it is likely that the priests kept the sacerdotal garments and the sacrificial utensils.[3] Sometimes the cell of the temple, or chamber into which the shrine opened, was reached through another apartment, corresponding to the Greek *pronaos*. In such a case, care seems to have been taken so to arrange the outer and inner doorways of the vestibule, that persons passing by the outer doorway should not be able to catch a sight of the shrine.[4] Where there was no vestibule, the entrance into the cell or body of the temple seems to have been placed at the side, instead of at the end, probably with the same object.[5] Besides these main parts of a temple, a certain number of chambers are always found, which appear to have been priests' apartments.

The ornamentation of temples, to judge by the few specimens which remain, was very similar to that of palaces. The great gateways were guarded by colossal bulls (?) or lions (see opposite), accompanied by the usual sacred figures, and sometimes covered with inscriptions. The entrances and some portions of the chambers were ornamented with the customary sculptured slabs, representing here none but religious subjects. No great proportion of the interior, however, was covered in this way, the walls being in general only plastered and then painted with figures or patterns. Externally, enamelled bricks were used as a decoration wherever sculptured slabs did not hide the crude brick.[6]

Much the same doubts and difficulties beset the subjects of

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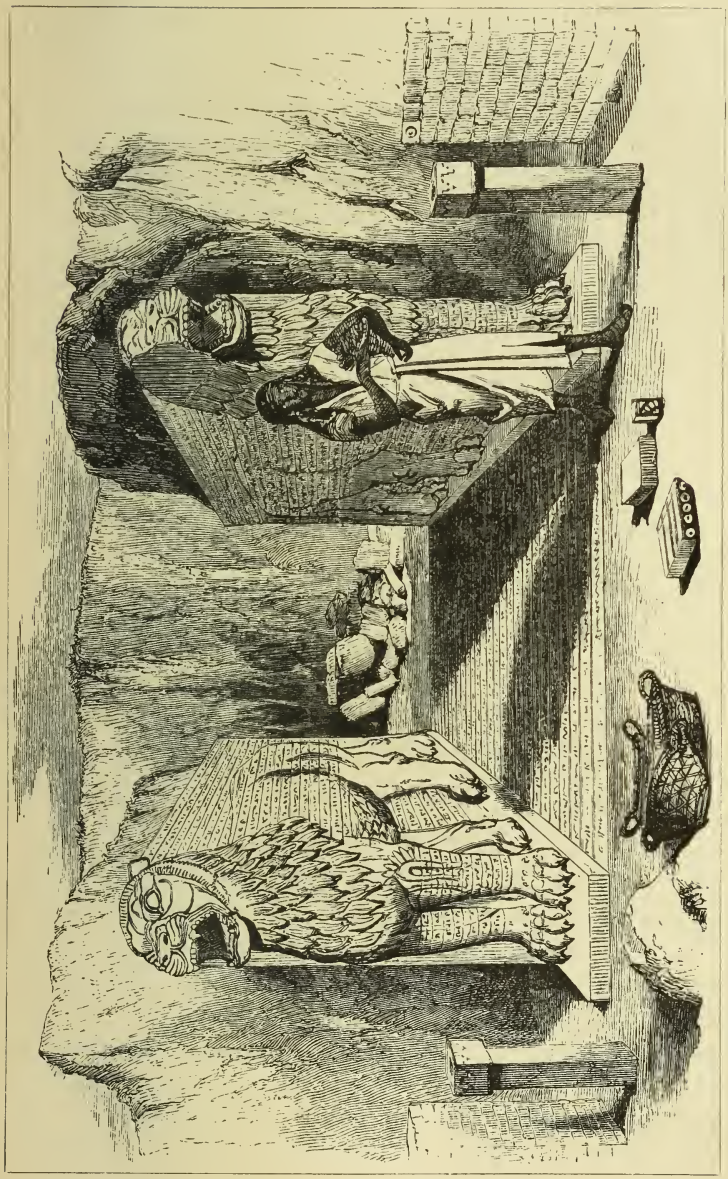
[2] The single slab which filled the recess (*f* in ground-plan, No. I.) in the greater of the two Nimrud temples, was 21 ft. long, 16 ft. 7 in. broad, and 1 ft. 1 in. thick. It contained thus 375 cubic feet of stone, and must have weighed nearly, if not quite, 30 tons. (See Layard's *Nineveh and Babylon*, p. 352.)

[3] Ibid. p. 357.

[4] Note the position of the doorways, *b* and *d*, in ground-plan No. I.

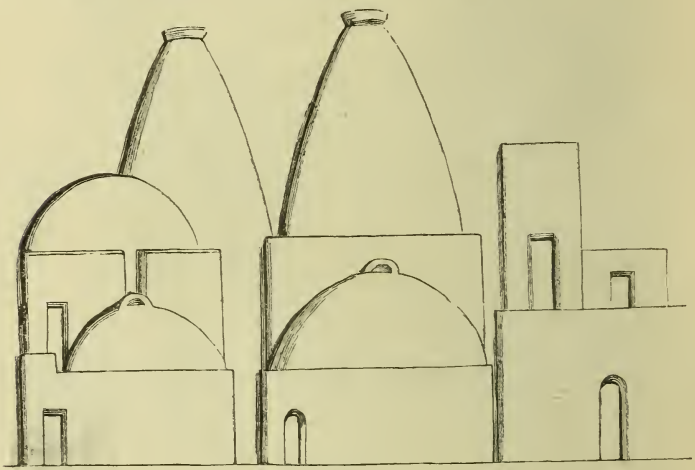
[5] See ground-plan No. II., entrance *b*.

[6] Layard, *Nineveh and Babylon*, p. 359.



Entrance to smaller temple, Nimrud (after Layard).

the roofing and lighting of the temples as those which have been discussed already in connection with the palaces. Though the span of the temple-chambers is less than that of the great palace halls, still it is considerable, sometimes exceeding thirty feet.[7] No effort seems made to keep the temple-chambers narrow, for their width is sometimes as much as two-thirds of their length. Perhaps, therefore, they were hypæthral, like the temples of the Greeks. All that seems to be certain is that what roofing they had was of wood,[8] which at Nimrud was cedar, brought probably from the mountains of Syria.



Assyrian Village (Koyunjik).

Of the domestic architecture of the Assyrians we possess absolutely no specimen. Excavation has been hitherto confined to the most elevated portions of the mounds which mark the sites of cities, where it was likely that remains of the greatest interest would be found. Palaces, temples, and the great gates which gave entrance to towns, have in this way seen the light; but the humbler buildings, the ordinary dwellings of the people, remain buried beneath the soil, unexplored and even unsought for. In this entire default of any actual speci-

[7] The chamber marked *e* in ground-plan No. I. (p. 319) was 47 ft. long by 31 ft. wide. (Layard, *Nineveh and Babylon*, p 352.)

[8] Ibid. p. 357.

men of an ordinary Assyrian house, we naturally turn to the sculptured representations which are so abundant and represent so many different sorts of scenes. Even here, however, we obtain but little light. The bulk of the slabs exhibit the wars of the kings in foreign countries, and thus place before us foreign rather than Assyrian architecture. The processional slabs, which are another large class, contain rarely any building at all, and, where they furnish one, exhibit to us a temple rather than a house. The hunting scenes, representing wilds far from the dwellings of man, afford us, as might be expected, no help. Assyrian buildings, other than temples, are thus most rarely placed before us. In one case, indeed, we have an Assyrian city, which a foreign enemy is passing; but the only

Village near Aleppo (after Layard).

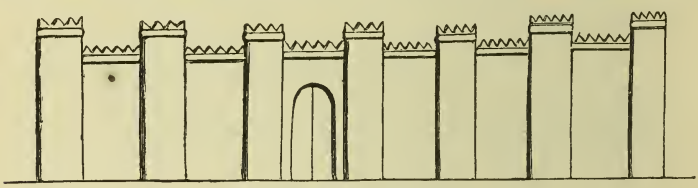
edifices represented are the walls and towers of the exterior, and the temple (No. VI. p. 312) whose columns rest upon lions. In one other we seem to have an unfortified Assyrian village;[9] and from this single specimen we are forced to form our ideas of the ordinary character of Assyrian houses.

It is observable here, in the first place, that the houses have no windows, and are, therefore, probably lighted from the roof; next, that the roofs are very curious, since, although flat in some instances, they consist more often either of hemispherical domes, such as are still so common in the East, or of steep and high cones, such as are but seldom seen anywhere. Mr. Layard finds a parallel for these last in certain villages of Northern Syria, where all the houses have conical roofs, built

[9] Layard, *Monuments of Nineveh*, Pl. 17. A portion of this village is represented in the woodcut, p. 322.

of mud, which present a very singular appearance.[1] Both the domes and the cones of the Assyrian example have evidently an opening at the top, which may have admitted as much light into the houses as was thought necessary. The doors are of two kinds, square at the top, and arched; they are placed commonly towards the sides of the houses. The houses themselves seem to stand separate, though in close juxtaposition.

The only other buildings of the Assyrians which appear to require some notice are the fortified enceintes of their towns. The simplest of these consisted of a single battlemented wall, carried in lines nearly or quite straight along the four sides of the place, pierced with gates and guarded at the angles, at the gates, and at intervals along the curtain, with projecting towers, raised not very much higher than the walls, and (apparently) square in shape. In the sculptures we sometimes find



Assyrian battlemented wall.

the battlemented wall repeated twice or thrice in lines placed one above the other, the intention being to represent the defence of a city by two or three walls, such as we have seen existed on one side of Nineveh.[2]

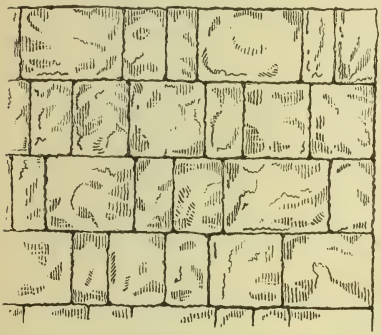
The walls were often, if not always, guarded by moats. Internally they were, in every case, constructed of crude brick; while externally it was common to face them with hewn stone, either from top to bottom, or at any rate to a certain height. At Khorsabad the stone revêtement of one portion at least of the wall was complete; at Nimrud (Calah) and at Nineveh itself, it was partial, being carried at the former of those places only to the height of twenty feet.[3] The masonry at Khorsabad

[1] Layard, *Nineveh and Babylon*, p. 112. The representation is of a village in the neighbourhood of Aleppo.

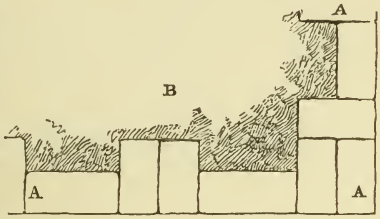
[2] Supra, pp. 259-261.

[3] Supra, p. 258, note [1].

was of three kinds. That of the palace mound, which formed a portion of the outer defence, was composed entirely of blocks of stone, square-hewn and of great size, the length of the blocks varying from two to three yards, while the width was one yard, and the height from five to six feet. The masonry was laid somewhat curiously. The blocks (A A) were placed alternately long-wise and end-wise against the crude brick (B), so as not merely to lie against it, but to penetrate it with their



Masonry of platform wall, Khorsabad.



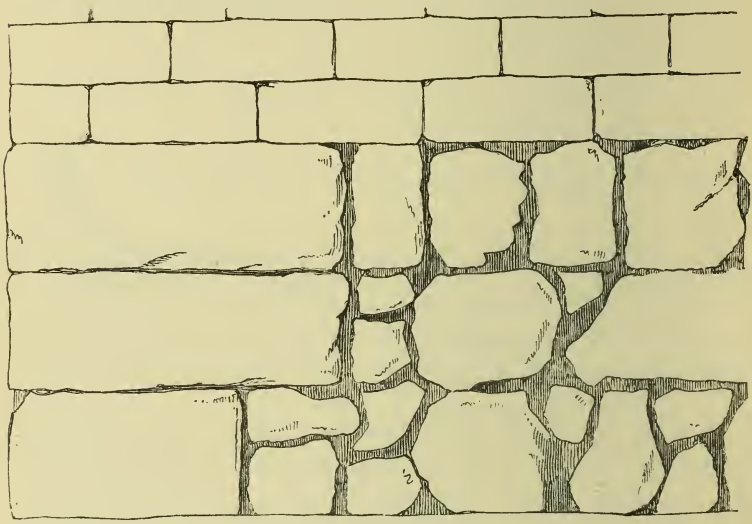
Section of same.

ends in many places.[4] Care was also taken to make the angles especially strong, as will be seen by the accompanying section.

The rest of the defences at Khorsabad were of an inferior character. The wall of the town had a width of about forty-five feet, and its basement, to the height of three feet, was constructed of stone; but the blocks were neither so large, nor were they hewn with the same care, as those of the palace platform. The angles, indeed, were of squared stone; but even there the blocks measured no more than three feet in length

[4] M. Botta says: "Cette muraille était construite en blocs de pierre calcaire très-dure, venant des montagnes voisines: ces blocs ont la forme de parallélopipèdes rectangles d'une coupe régulière, et sont disposés par assises, de manière à présenter alternativement au dehors leur face la plus large et une de leurs extrémités; c'est-à-dire que tous étant posés de champ, l'un tapisse le massif, puis un et quelquefois deux autres continuent l'assise par leurs extrémités, la même alternative se répétant dans toute la longueur de celle-ci. Il en résulte qu'étant tous de même longueur, ceux qui présentent une extrémité au dehors dépassent à l'intérieur la ligne des autres, et s'encastrent dans le massif de briques. Cette disposition avait pour but de lier solidement l'amas terreux intérieur au revêtement extérieur." (*Monument de Ninive*, vol. v. p. 31.)

and a foot in height; the rest of the masonry consisted of small polygonal stones, merely smoothed on their outer face, and roughly fitting together in a manner recalling the Cyclopian walls of Greece and Italy.[5] They were not united by any cement. Above the stone basement was a massive structure of crude brick, without any facing either of burnt brick or of stone.

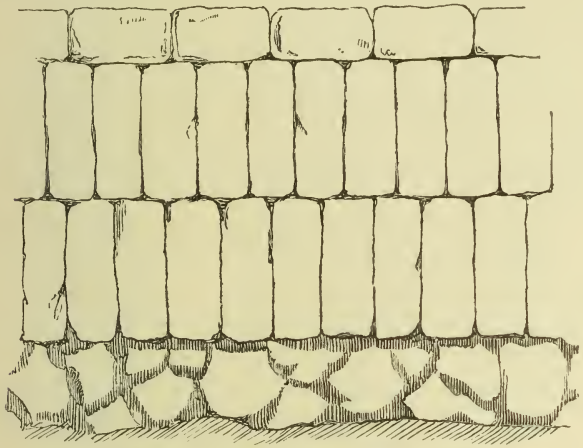


Masonry of town-wall (Khorsabad).

The third kind of masonry at Khorsabad was found outside the main wall, and may have formed either part of the lining of the moat or a portion of a tower, which may have projected in advance of the wall at this point. It was entirely of stone. The lowest course was formed of small and very irregular polygonal blocks roughly fitted together; above this came two courses of carefully squared stones more than a foot long, but less than six inches in width, which were placed end-wise, one

[5] M. Botta makes this comparison (*Monument de Ninive*, l. s. c.). His representation, however, differs in two main points from the ordinary Cyclopian style: 1. the horizontal course seems to be maintained throughout; and 2. the stones do not fit into each other at all closely or with any exactness.

over the other, care being taken that the joints of the upper tier should never coincide exactly with those of the lower. Above these was a third course of hewn stones, somewhat smaller than the others, which were laid in the ordinary manner. Here the construction, as discovered, terminated; but it was evident, from the *débris* of hewn stones at the foot of the wall, that originally the courses had been continued to a much greater height.[6]



Masonry of tower or moat (Khorsabad).

In this description of the buildings raised by the Assyrians it has been noticed more than once that they were not ignorant of the use of the arch.[7] The old notion that the round arch was a discovery of the Roman, and the pointed of the Gothic architecture, has gradually faded away with our ever-increasing knowledge of the actual state of the ancient world;[8] and antiquarians were not, perhaps, very much surprised to learn, by

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[6] Botta, *Monument de Ninive*, vol. v. p. 31.

[7] Supra, pp. 301, 311, &c.

[8] The earliest arches seem to be those of Egypt, which mount at least to the 15th century before our era. (Wilkinson, *Ancient Egyptians*, 1st series, iii. p. 317; Falkener, *Dædalus*, App. p. 288.) The Babylonian arches mentioned above (p. 82) cannot be much later than B.C. 1300. The earliest known Assyrian arches would belong to about the 9th century B.C.

the discoveries of Mr. Layard, that the Assyrians knew and used both kinds of arch in their constructions. Some interest, however, will probably be felt to attach to the two questions, how they formed their arches, and to what uses they applied them.

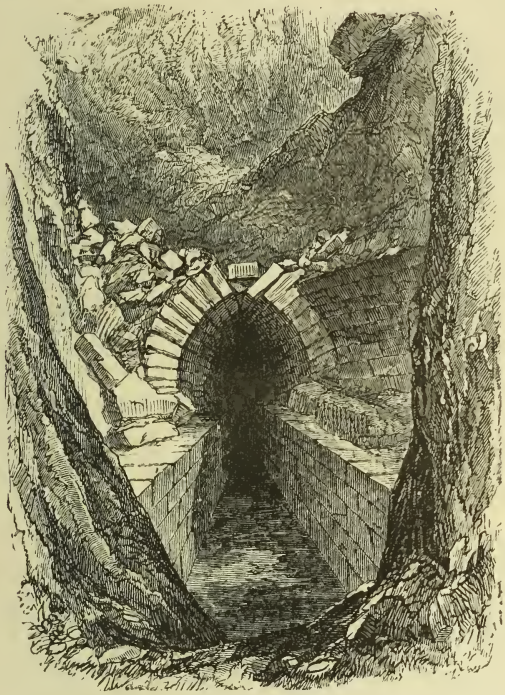
Arched drain, North-West Palace, Nimrud (after Layard).

All the Assyrian arches hitherto discovered are of brick. The round arches are both of the crude and of the kiln-dried material, and are formed, in each case, of bricks made expressly for vaulting, slightly convex at top and slightly concave at bottom, with one broader and one narrower end. The arches are of the simplest kind, being exactly semicircular, and rising from plain perpendicular jambs. The greatest width which any such arch has been hitherto found to span is about fifteen feet.[9]

The only pointed arch actually discovered is of burnt brick. The bricks are of the ordinary shape, and not intended for vaulting. They are laid side by side up to a certain point, being bent into a slight arch by the interposition between them of thin wedges of mortar. The two sides of the arch having been in this way carried up to a point where the lower extremities of the two innermost bricks nearly touched, while a

[9] Fergusson, *Handbook of Architecture*, vol. i. p. 173.

considerable space remained between their upper extremities, instead of a key-stone, or key-brick fitting the aperture, ordinary bricks were placed in it longitudinally, and so the space was filled in.[1]



Arched drain, South-East Palace, Nimrud (after Layard).

Another mode of constructing a pointed arch seems to be intended in a bas-relief, whereof a representation has been already given.[2] The masonry of the arcade in No. V. (p. 310) runs (it will be seen) in horizontal lines up to the very edge of the arch, thus suggesting a construction common in many of the early Greek arches, where the stones are so cut away that an arched opening is formed, though the real constructive principle of the arch has no place in such specimens.[3]

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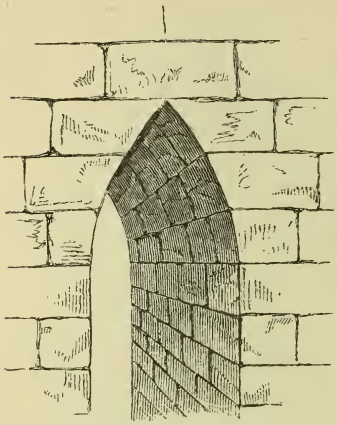
[1] Layard, *Nineveh and Babylon*, p. 163.
[2] Supra, p. 310.
[3] See Smith's *Dictionary of Greek and Roman Antiquities*, p. 125, 2nd edition; and Mr. Falkener's *Dædalus*, App. p. 288. Compare the representation overleaf.

With regard to the uses whereto the Assyrians applied the arch, it would certainly seem, from the evidence which we possess, that they neither employed it as a great decorative feature, nor yet as a main principle of construction. So far as appears, their chief use of it was for doorways and gateways. Not only are the town gates of Khorsabad found to have been arched over, but in the representations of edifices, whether native or foreign, upon the bas-reliefs, the arch for doors is commoner than the square top. It is most probable that the great palace gateways were thus covered in, while it is certain that some of the interior doorways in palaces had rounded tops.[4] Besides this use of the arch for doors and gates, the Assyrians are known to have employed it for drains, aqueducts, and narrow chambers or galleries.



False arch (Greek).

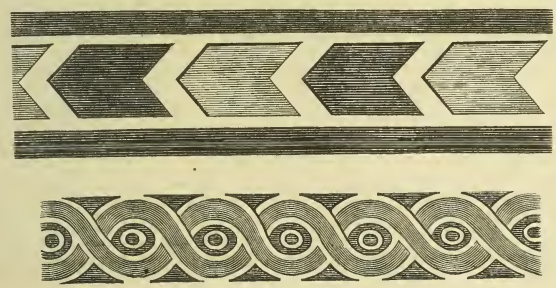
It has been suggested that the Assyrians applied the two kinds of arches to different purposes, "thereby showing more science and discrimination than we do in our architectural works;" that "they used the pointed arch for underground work, where they feared great superincumbent pressure on the apex, and the round arch above ground, where that was not to be dreaded."[5] But this ingenious theory is scarcely borne out by the facts. The round arch is employed underground in two instances at Nimrud,[6] besides occurring in the basement story of the great tower,[7] where the superincumbent weight must have been enormous. And the pointed arch is used above ground for the aqueduct and hanging garden in the bas-relief (p. 310), where the pressure, though considerable, would not

[4] Infra, p. 335.
[5] Fergusson, *Handbook of Architecture*, p. 252.
[6] Layard, *Nineveh and Babylon*, pp. 162 and 165.
[7] Supra, p. 318.

have been very extraordinary. It would seem, therefore, to be doubtful whether the Assyrians were really guided by any constructive principle in their preference of one form of the arch over the other.

In describing generally the construction of the palaces and other chief buildings of the Assyrians, it has been necessary, occasionally to refer to their ornamentation; but the subject is far from exhausted, and will now claim, for a short space, our special attention. Beyond a doubt the chief adornment, both of palaces and temples, consisted of the colossal bulls and lions guarding the great gateways, together with the sculptured slabs wherewith the walls, both internal and external, were ordinarily covered to the height of twelve or sometimes even of fifteen feet. These slabs and carved figures will necessarily be considered in connexion with Assyrian sculpture, of which they form the most important part. It will, therefore, only be noted at present that the extent of wall covered with the slabs was, in the Khorsabad palace, at least 4000 feet,[8] or nearly four-fifths of a mile, while in each of the Koyunjik palaces the sculptures extended to considerably more than that distance.

The ornamentation of the walls above the slabs, both internally and externally, was by means of bricks painted on the

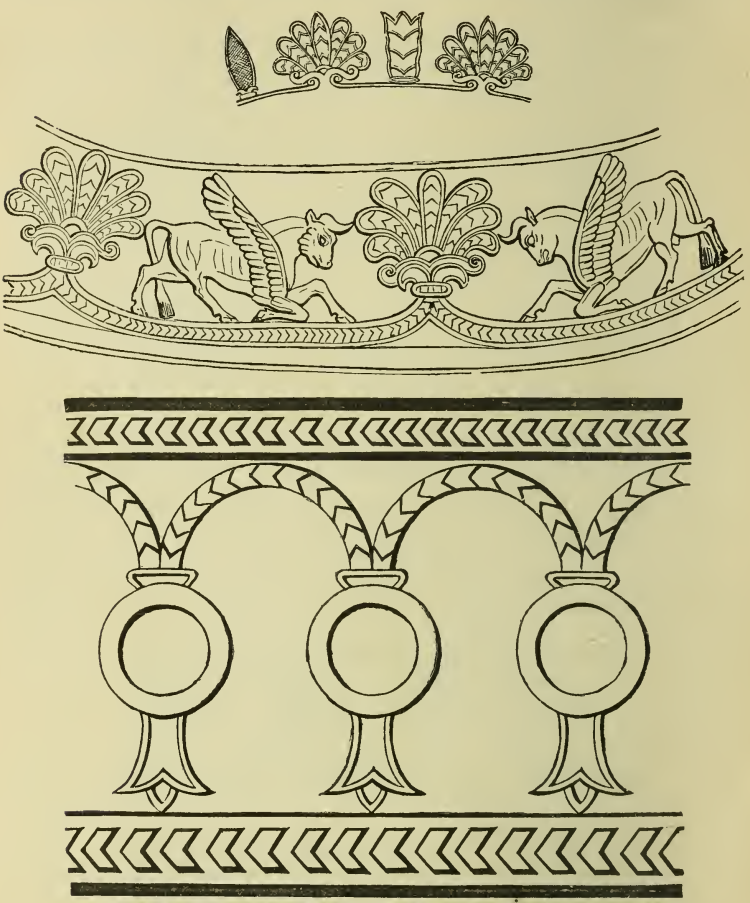


Assyrian patterns (Nimrud).

exposed side and covered with an enamel. The colours are for the most part somewhat pale, but occasionally they possess some brilliancy. Predominant among the tints are a pale blue,

[8] Fergusson, *Palaces of Nineveh*, p. 265.

an olive green, and a dull yellow. White is also largely used; brown and black are not infrequent; red is comparatively rare.[9] The subjects represented are either such scenes as occur upon



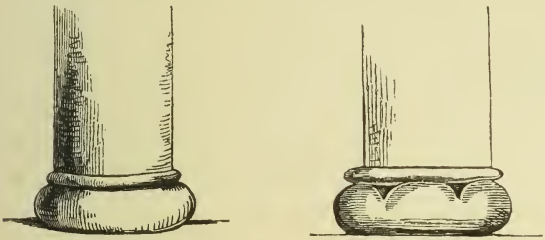
Assyrian patterns (Nimrud).

the sculptured slabs, or else mere patterns, scrolls, honeysuckles, chevrons, gradines, guilloches, &c. In the scenes some attempt seems to be made at representing objects in their

[9] See Botta's *Monument de Ninive*, vol. ii. Plates 155 and 156; Layard's *Monuments of Nineveh*, 1st series, Plates 84, 86, and 87; 2nd series, Plates 53, 54, and 55.

natural colours. The size of the figures is small; and it is difficult to imagine that any great effect could have been produced on the beholder by such minute drawings placed at such a height from the ground. Probably the most effective ornamentation of this kind was by means of patterns, which are often graceful and striking (see opposite page).

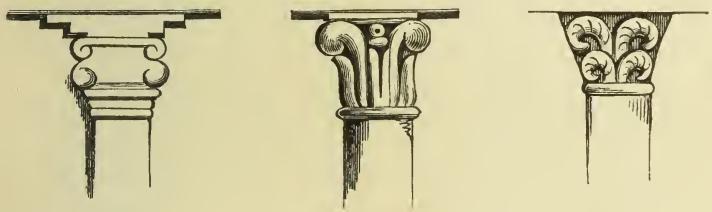
It has been observed that, so far as the evidence at present goes, the use of the column in Assyrian architecture would



No. I. No. II.

Pillar bases.

seem to have been very rare indeed.[1] In palaces we have no grounds for thinking that they were employed at all excepting



No. I. No. II. No. III.

Assyrian capitals.

in certain of the interior doorways, which, being of unusual breadth, seem to have been divided into three distinct portals by means of two pillars placed towards the sides of the opening.[2]

[1] Supra, p. 303, note [6]. Mr. Fox Talbot supposes that he has found a mention of *columns* in a description given of one of his palaces by Sennacherib. (*Assyrian Texts Translated*, p. 8.) But the technical terms in the Assyrian architectural descriptions are of such doubtful meaning that no theory can at present be rested upon them.

[2] Layard, *Nineveh and Babylon*, p. 103; *Nineveh and its Remains*, vol. i. Plan II. opp. p. 34, and p. 376. Columns may also have been used to support a covered passage across a court. (Supra, p. 311.)

The bases of these pillars were of stone, and have been found *in situ;* their shafts and capitals had disappeared, and can only be supplied by conjecture. In the temples, as we have seen, the use of the column was more frequent. Its dimensions greatly varied. Ordinarily it was too short and thick for beauty,[3] while occasionally it had the opposite defect, being too tall and slender.[4] Its base was sometimes quite plain, sometimes diversified by a few mouldings, sometimes curiously and rather clumsily rounded (as in No. II. above). The shaft was occasionally patterned.[5] The capital, in one instance (No. I.), approaches to the Corinthian; in another (No. II.) it reminds us of the Ionic; but the volutes are double, and the upper ones are surmounted by an awkward-looking abacus. A third (No. III.) is very peculiar, and to some extent explains the origin of the second. It consists of two pairs of ibex horns, placed one over the other. With this may be compared another (No. IV.), the most remarkable of all, where we have first a single pair of ibex horns, and then, at the summit, a complete figure of an ibex, very graphically portrayed.

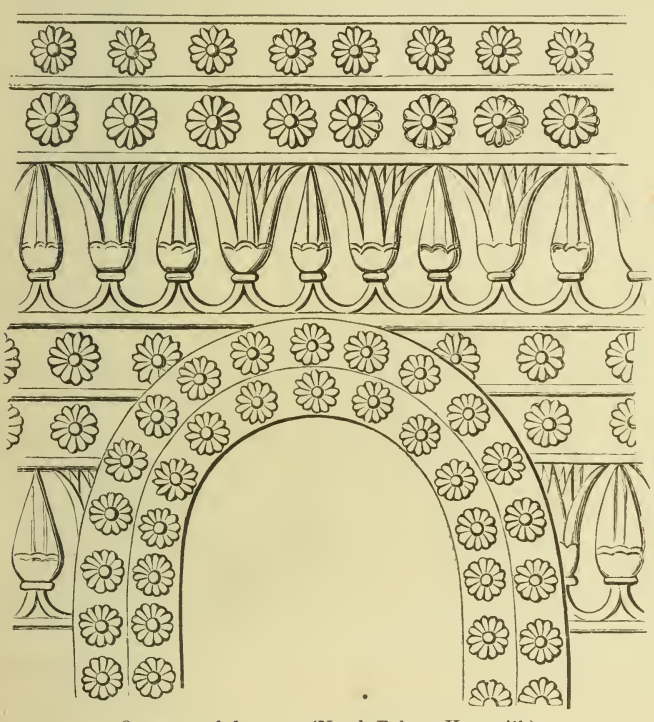
No. IV.
Ibex capital.

The beauty of Assyrian patterning has been already noticed. Patterned work is found not only on the enamelled bricks, but on stone pavement slabs, and around arched doorways leading from one chamber to another, where the patterns are carved with great care and delicacy upon the alabaster. The accompanying specimen of a doorway, which is taken from an unpublished drawing by Mr. Boutcher, is very rich and elegant, though it exhibits none but the very commonest of the Assyrian patterns. A carving of a more elaborate type, and one presenting even greater delicacy of workmanship, has been given in an earlier portion of this chapter[6] as an example of a patterned pavement slab. Slabs of this kind have been found in many

[3] See above, p. 310, woodcut No. V. [4] Ibid., woodcut No. IV. [5] Ibid.
[6] Page 279.

of the palaces, and well deserve the attention of modern designers.

When the architecture of the Assyrians is compared with that of other nations possessing about the same degree of civilisation, the impression that it leaves is perhaps somewhat disappointing. Vast labour and skill, exquisite finish, the most extraordinary elaboration, were bestowed on edifices so essen-



Ornamental doorway (North Palace, Koyunjik).

tially fragile and perishable that no care could have preserved them for many centuries. Sun-dried brick, a material but little superior to the natural clay of which it was composed, constituted everywhere the actual fabric, which was then covered thinly and just screened from view by a facing, seldom more than a few inches in depth, of a more enduring and handsomer substance. The tendency of the platform mounds, as soon as

formed, must have been to settle down, to bulge at the sides and become uneven at the top, to burst their stone or brick facings and precipitate them into the ditch below, at the same time disarranging and breaking up the brick pavements which covered their surface. The weight of the buildings raised upon the mounds must have tended to hasten these catastrophes, while the unsteadiness of their foundations and the character of their composition must have soon had the effect of throwing the buildings themselves into disorder, of loosening the slabs from the walls, causing the enamelled bricks to start from their places, the colossal bulls and lions to lean over, and the roofs to become shattered and fall in. The fact that the earlier palaces were to a great extent dismantled by the later kings is perhaps to be attributed, not so much to a barbarous resolve that they would destroy the memorials of a former and a hostile dynasty, as to the circumstance that the more ancient buildings had fallen into decay and ceased to be habitable. The rapid succession of palaces, the fact that, at any rate from Sargon downwards, each monarch raises a residence, or residences, for himself, is yet more indicative of the rapid deterioration and dilapidation (so to speak) of the great edifices. Probably a palace began to show unmistakable symptoms of decay and to become an unpleasant residence at the end of some twenty-five or thirty years from the date of its completion; effective repairs were, by the very nature of the case, almost impossible; and it was at once easier and more to the credit of the monarch that he should raise a fresh platform and build himself a fresh dwelling than that he should devote his efforts to keeping in a comfortable condition the crumbling habitation of his predecessor.

It is surprising that, under these circumstances, a new style of architecture did not arise. The Assyrians were not, like the Babylonians, compelled by the nature of the country in which they lived to use brick as their chief building material. M. Botta expresses his astonishment at the preference of brick to stone exhibited by the builders of Khorsabad, when the neighbourhood abounds in rocky hills capable of furnishing an inex-

haustible supply of the better material.[7] The limestone range of the Jebel Maklub is but a few miles distant, and many outlying rocky elevations might have been worked with still greater facility. Even at Nineveh itself, and at Calah or Nimrud, though the hills were further removed, stone was, in reality, plentiful. The cliffs a little above Koyunjik are composed of a "hard sandstone,"[8] and a part of the moat of the town is carried through "compact silicious conglomerate."[9] The town is, in fact, situated on "a spur of rock" thrown off from the Jebel Maklub,[1] which terminates at the edge of the ravine whereby Nineveh was protected on the south. Calah, too, was built on a number of "rocky undulations,"[2] and its western wall skirts the edge of "conglomerate" cliffs, which have been scarped by the hand of man.[3] A very tolerable stone was thus procurable on the actual sites of these ancient cities; and if a better material had been wanted, it might have been obtained in any quantity, and of whatever quality was desired, from the Zagros range and its outlying rocky barriers. Transport could scarcely have caused much difficulty, as the blocks might have been brought from the quarries where they were hewn to the sites selected for the cities by water-carriage,—a mode of transport well known to the Assyrians, as is made evident to us by the bas-reliefs. (See the woodcut overleaf.)

If the best possible building material was thus plentiful in Assyria, and its conveyance thus easy to manage, to what are we to ascribe the decided preference shown for so inferior a substance as brick? No considerable difficulty can have been

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[7] *Monument de Ninive*, vol. v. p. 64: "La manière de bâtir les édifices est d'autant plus singulière, qu'à Ninive (Khorsabad) au moins la pierre était très-abondante et de bonne qualité, et que rien ne forçait les habitans à se servir de briques." And again, p. 65: "L'abondance des roches, soit calcaires, soit gypseuses, pouvait leur fournir d'excellents matériaux aussi solides que faciles à travailler."

[8] *Journal of Asiatic Society*, vol. xv. p. 317.

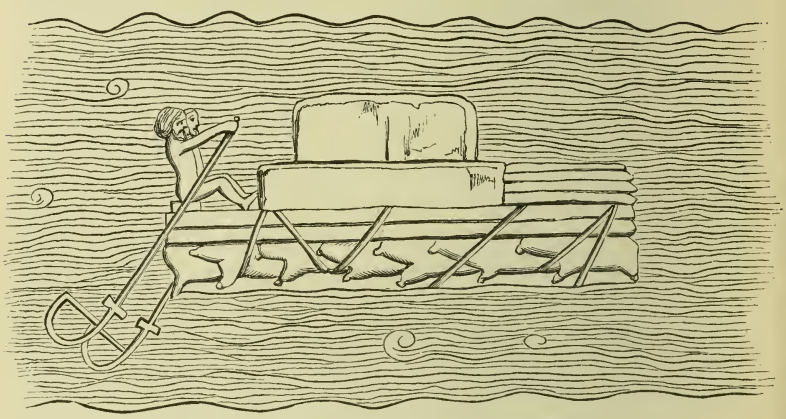
[9] Ibid. p. 311. (See above, p. 259.)

[1] Ibid. pp. 317 and 323.

[2] Ibid. p. 347.

[3] Ibid. p. 346. It is very remarkable that Mr. Layard should so entirely have ignored these features of the geology of Assyria in his account of the Assyrian architecture. (*Nineveh and its Remains*, vol. ii. ch. ii. pp. 250–275.) It would be concluded from his account by a reader not otherwise informed on the subject, that no stone but the delicate alabaster used for the bas-reliefs was accessible to the Assyrian architects.

experienced in quarrying the stone of the country, which is seldom very hard, and which was, in fact, cut by the Assyrians, whenever they had any sufficient motive for removing or making use of it.[4] One answer only can be reasonably given to the question. The Assyrians had learnt a certain style of architecture in the alluvial Babylonia, and having brought it with them into a country far less fitted for it, maintained it from habit, notwithstanding its unsuitableness.[5] In some few



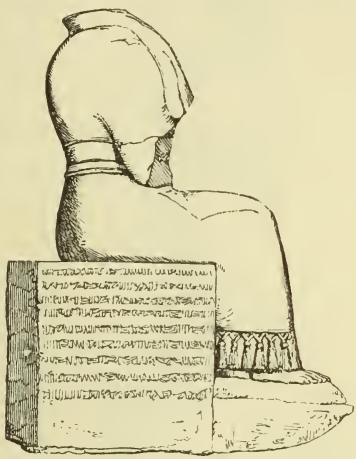
Water-transport of stone for building (Koyunjik).

respects, indeed, they made a slight change. The abundance of stone in the country induced them to substitute it in several places where in Babylonia it was necessary to use burnt brick, as in the facings of platforms and of temples, in dams across streams, in pavements sometimes, and universally in the ornamentation of the lower portions of palace and temple walls.

[4] At Nimrud the western cliff is "artificially scarped" to make it a secure defence. (*Journal of As. Soc.* vol. xv. p. 346.) At Negoub the rock is tunnelled for some distance, and for a longer space "chiselled through a hard sandstone and surface-conglomerate to a depth perhaps of forty feet." (Ibid. p. 311.) At Nineveh the moat is carried "for upwards of two miles, with a breadth of 200 feet, through a peculiarly hard and compact silicious conglomerate." (Ibid. p. 320.) A very hard basalt was used in the palace temple at Khorsabad. (Supra, p. 296.)

[5] M. Botta winds up his remarks on the strangeness of the Assyrian architecture occurring where it does, by suggesting "que les monumens de Ninive sont postérieurs à ceux de Babylone, et que c'est dans ce dernier pays qu'il faut chercher l'origine de l'art Assyrien" (p. 65).

But otherwise they remained faithful to their architectural traditions, and raised in the comparatively hilly Assyria the exact type of building which nature and necessity had led them to invent and use in the flat and stoneless alluvium where they had had their primitive abode. As platforms were required both for security and for comfort in the lower region, they retained them, instead of choosing natural elevations, in the upper one. As clay was the only possible material in the one place, clay was still employed, notwithstanding the abundance of stone, in the other. Being devoid of any great inventive genius, the Assyrians found it easier to maintain and slightly modify a system with which they had been familiar in their original country than to devise a new one more adapted to the land of their adoption.



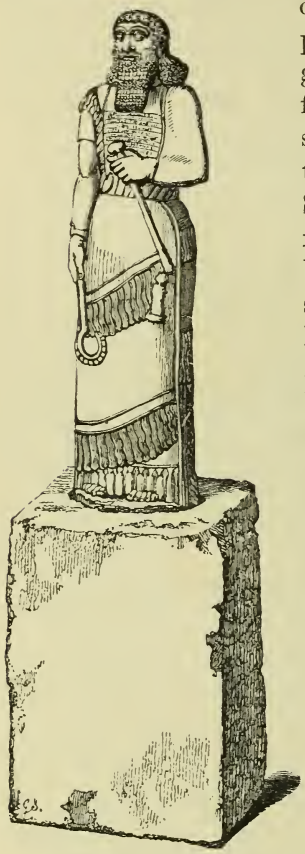
Assyrian statue (Kileh-Sherghat).

Next to the architecture of the Assyrians, their mimetic art seems to deserve attention. Though the representations in the works of Layard and Botta, combined with the presence of so many specimens in the great National Museums of London and Paris, have produced a general familiarity with the subject, still, as a connected view of it in its several stages and branches is up to the present time a desideratum in our literature,[1] it may not be superfluous here to attempt a brief account of the different classes into which their productions in this kind of art fall, and the different eras and styles under which they naturally range themselves.

[1] Mr. Fergusson, who has treated of the architecture of the Assyrians with so much knowledge and ingenuity, says but little on the subject of their sculpture. Mr. Layard's review of the subject in his first work (Book II. ch. ii.) is the best which at present exists; but it is of necessity incomplete, owing to the early period in the history of Assyrian discovery at which it was composed. Its views are also occasionally open to dispute.

Assyrian mimetic art consists of statues, bas-reliefs, metal-castings, carvings in ivory, statuettes in clay, enamellings on brick, and intaglios on stones and gems.

Assyrian statues are comparatively rare, and, when they occur, are among the least satisfactory of this people's productions. They are coarse, clumsy, purely formal in their design, and generally characterised by an undue flatness, or want of breadth in the side view, as if they were only intended to be seen directly in front. Sometimes, however, this defect is not apparent. A sitting statue in black basalt, of the size of life, representing an early king, which Mr. Layard discovered at Kileh-Sherghat,[2] and which is now in the British Museum, may be instanced as quite free from this disproportion. It is very observable, however, in another of the royal statues recently recovered,[3] as it is also in the monolith bulls and lions universally. Otherwise, the proportions of the figures are commonly correct. They bear a resemblance to the archaic Greek, especially to that form of it which we find in the sculptures from Branchidæ. They have just the same rudeness, heaviness, and stiff formality. It is difficult to judge of their execution, as they have mostly suffered great injury from the hand of man, or from the weather; but the royal statue here represented, which is in better preservation than any other Assyrian work



Statue of Sardanapalus I. (from Nimrud).

[2] See Layard, *Nineveh and its Remains*, vol. ii. pp. 51, 52.

[3] Layard, *Nineveh and Babylon*, p. 361. This statue is also in the British Museum.

"in the round" that has come down to us, exhibits a rather high finish.[4] It is smaller than life, being about three and a half feet high: the features are majestic, and well marked; the hair and beard are elaborately curled; the arms and hands are well shaped, and finished with care. The dress is fringed elaborately, and descends to the ground, concealing all the lower part of the figure. The only statues recovered besides these are two of the god Nebo, brought from Nimrud,[4] a mutilated one of Ishtar, or Astarte, found at Koyunjik, and a tolerably perfect one of Sargon, which was discovered at Idalium, in the island of Cyprus.[5]

Clay statuettes of the god Nebo (?).

The clay statuettes of the Assyrians possess even less artistic merit than their statues. They are chiefly images of gods or genii, and have most commonly something grotesque in their appearance. Among the most usual are figures which represent either Mylitta (Beltis), or Ishtar.[6] They are made in a fine terra cotta, which has turned of a pale red in baking, and are coloured with a cretaceous coating, so as greatly to resemble Greek pottery.[7] Another type is that of an old man, bearded, and with hands clasped, which we may perhaps identify with

[4] One of these is figured above, p. 141. The actual statues are both in the British Museum.

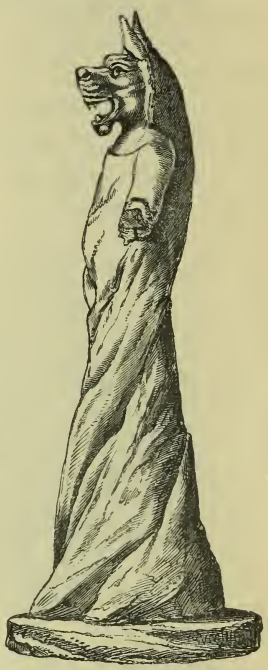
[5] This statue is in the Berlin Museum.

[6] See above, p. 140.

[7] Birch, *Ancient Pottery*, vol. i. p. 124.

Nebo, the Assyrian Mercury, since his statues in the British Museum have a somewhat similar character. Other forms are the fish-god Nin, or Nin-ip; and the deities, not yet identified, which were found by M. Botta under the pavement-bricks at Khorsabad. These specimens have the formal character of the statues, and are even more rudely shaped. Other examples, which carry the grotesque to an excess, appear to have been designed with greater spirit and freedom. Animal and human forms are sometimes intermixed in them; and while it cannot be denied that they are rude and coarse, it must be allowed on the other hand, that they possess plenty of vigour. M. Botta has engraved several specimens,[8] including two which have the hind legs and tail of a bull, with a human neck and arms, the head bearing the usual horned cap.

Clay statuette of the Fish-god.



Clay statuette from Khorsabad (after Botta).

Small figures of animals in terra cotta have also been found. They consist chiefly of dogs and ducks. A representation of each has been given in the chapter on the productions of Assyria.[9] The dogs discovered are made of a coarse clay, and seem to have been originally painted.[10] They are not wanting

[8] *Monument de Ninive*, vol. ii. plates 152 to 155.

[9] Supra, p. 234 (No. I.) and p. 235.

[10] According to Mr. Birch, the colours used were "blue, red, and black," and they were "laid on in a paste" (*Ancient Pottery*, vol. i. p. 125). At present the traces of colour on the dogs are very faint.

in spirit; but it detracts from their merit that the limbs are merely in relief, the whole space below the belly of the animal being filled up with a mass of clay for the sake of greater strength. The ducks are of a fine yellow material, and represent the bird asleep, with its head lying along its back.

Of all the Assyrian works of art which have come down to us by far the most important are the bas-reliefs. It is here especially, if not solely, that we can trace progress in style; and it is here alone that we see the real artistic genius of the people. What sculpture in its full form, or in the slightly modified form of very high relief, was to the Greeks, what painting has been to modern European nations since the time of Cimabue, that low relief was to the Assyrians—the practical mode in which artistic power found vent among them. They used it for almost every purpose to which mimetic art is applicable; to express their religious feelings and ideas, to glorify their kings, to hand down to posterity the nation's history and its deeds of prowess, to depict home scenes and domestic occupations, to represent landscape and architecture, to imitate animal and vegetable forms, even to illustrate the mechanical methods which they employed in the construction of those vast architectural works, of which the reliefs were the principal ornamentation. It is not too much to say that we know the Assyrians, not merely artistically, but historically and ethnologically, *chiefly* through their bas-reliefs, which seem to represent to us almost the entire life of the people.

The reliefs may be divided under five principal heads:—1. War scenes, including battles, sieges, devastations of an enemy's country, naval expeditions, and triumphant returns from foreign war, with the trophies and fruits of victory; 2. Religious scenes, either mythical or real; 3. Processions, generally of tribute-bearers, bringing the produce of their several countries to the Great King; 4. Hunting and sporting scenes, including the chase of savage animals, and of animals sought for food, the spreading of nets, the shooting of birds, and the like; and 5. Scenes of ordinary life, as those representing the transport and erection of colossal bulls, landscapes, temples, interiors, gardens, &c.

The earliest art is that of the most ancient palaces at Nimrud. It belongs to the latter part of the tenth century before our era; the time of Asa in Judæa, of Omri and Ahab in Samaria, and of the Sheshonks in Egypt. It is characterised by much spirit and variety in the design, by strength and firmness, combined with a good deal of heaviness, in the execution, by an entire contempt for perspective, and by the rigid preservation in almost every case, both human and animal, of the exact profile both of figure and face.[1] Of the illustrations already given in the present volume a considerable number belong to this period. The heads on page 237, and the figures on page 242, represent the ordinary appearance of the men,[2] while animal

Lion-hunt, from Nimrud.

forms of the time will be found in the lion on page 220, the ibex on page 221, the gazelle on page 224, the horse on page 232, and the horse and wild bull on page 227. It will be seen upon reference that the animal are very much superior to the human forms, a characteristic which is not, however, peculiar to the style of this period, but belongs to all Assyrian art, from its earliest to its latest stage. A favourable specimen of the style will be found in the lion hunt which Mr. Layard has

[1] The only exceptions are believed to be a few instances of lions' heads, and one human head on the ornamentation of dresses at Nimrud. (See Layard's *Monuments*, 1st Series, Plates 9 and 50, fig. 7.)

[2] The woodcut on page 242 is also a good specimen of the defective perspective of the Assyrian artists.

engraved in his 'Monuments,'[3] and of which he himself observes, that it is "one of the finest specimens hitherto discovered of Assyrian sculpture."[4] The composition is at once simple and effective. The king forms the principal object nearly in the centre of the picture, and by the superior height of his conical head-dress, and the position of the two arrows which he holds in the hand that draws the bowstring, dominates over the entire composition. As he turns round to shoot down at the lion which assails him from behind, his body is naturally and gracefully bent, while his charioteer, being engaged in urging his horses forward, leans naturally in the opposite direction, thus contrasting with the main figure and balancing it. The lion immediately behind the chariot is outlined with great spirit and freedom; his head is masterly; the fillings up of the body, however, have too much conventionality. As he rises to attack the monarch, he conducts the eye up to the main figure, while at the same time by this attitude his principal lines form a pleasing contrast to the predominant perpendicular and horizontal lines of the general composition. The dead lion in front of the chariot balances the living one behind it, and, with its crouching attitude, and drooping head and tail, contrasts admirably with the upreared form of its fellow. Two attendants, armed with sword and shield, following behind the living lion, serve to balance the horses drawing the chariot, without rendering the composition too symmetrical. The horses themselves are the weakest part of the picture; the fore-legs are stiff and too slight, and the heads possess little spirit.

It is seldom that designs of this early period can boast nearly so much merit. The religious and processional pieces are stiff in the extreme;[5] the battle scenes are overcrowded and confused;[6] the hunting scenes are superior to these,[7] but in general

[3] *Monuments of Nineveh*, 1st Series, Pl. 10.

[4] Ibid. p. 3.

[5] See ibid. Plates 12, 23, 24, &c.

[6] See particularly, in the same work, Plates 13, 14, 19, 28, and 29.

[7] The hunt of the wild bull (Plate 11), a *pendant* to the hunt of the lion above described, resembles it in many respects, but on the whole is decidedly inferior. Several hunting scenes, possessing considerable merit, are represented on the embroidery of dresses. (See Pl. 44, fig. 6; Pl. 48, figs. 4 and 6; Pl. 49, figs. 3 and 4; and Pl. 50, fig. 1.)

they too fall far below the level of the above-described composition.

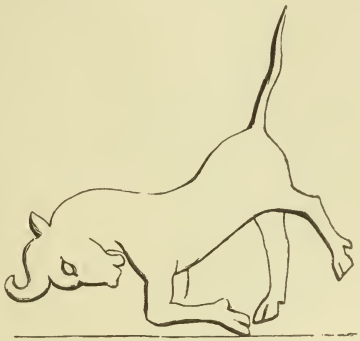
The best drawing of this period is found in the figures forming the patterns or embroidery of dresses. The gazelle, of which

Assyrian seizing a wild bull (Nimrud).

a representation has been given (page 224), the ibex (page 221), the horse (page 232), and the horseman hunting the wild bull (page 227), are from ornamental work of this kind. They are

Hawk-headed figure and sphinx (Nimrud).

favourable specimens perhaps; but, still, they are representatives of a considerable class. Some examples even exceed these in the freedom of their outline, and the vigorous action which they depict, as, for instance, the man seizing a wild bull by the horn and fore-leg, which is figured page 346. In general, however, there is a tendency in these early drawings to the grotesque. Lions and bulls appear in absurd attitudes; hawk-headed figures in petticoats threaten human-headed lions with a mace or a strap, sometimes holding them by a paw, sometimes grasping them round the middle of the tail; priests hold up ibexes at arm's length by one of their hind-legs, so that their heads trail upon the ground; griffins claw after antelopes, or antelopes toy with winged lions; even in the hunting scenes, which are less simply ludicrous, there seems to be an occasional striving after strange and laughable attitudes, as when a stricken bull tumbles upon his head, with his tail tossed straight in the air, or when a lion receives his death-wound with arms outspread, and mouth widely agape.



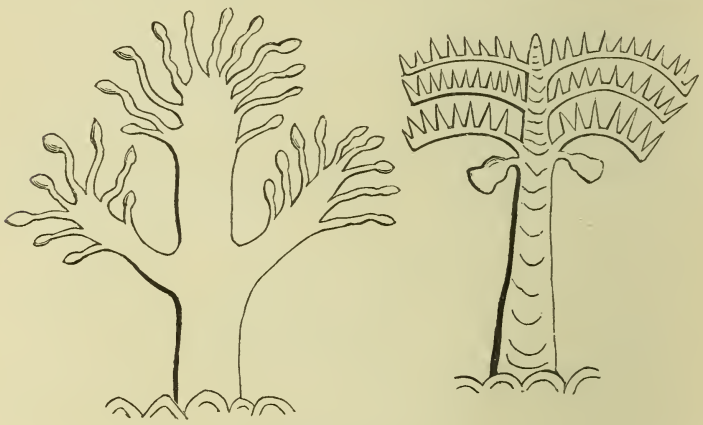
Death of a wild bull (Nimrud).

King killing a lion (Nimrud).

The second period of Assyrian mimetic art extends from the latter part of the eighth to nearly the middle of the seventh century before our era; or, more exactly, from about B.C. 721, to

B.C. 667. It belongs to the reigns of the three consecutive kings —Sargon, Sennacherib, and Esar-haddon, who were contemporary with Hezekiah and Manasseh in Judæa, and with the Sabacos (Shebeks) and Tirhakah (Tehrak) in Egypt. The sources which chiefly illustrate this period are the magnificent series of engravings published by MM. Flandin and Botta,[1] together with the originals of a certain portion of them in the Louvre; the engravings in Mr. Layard's first folio work, from pl. 68 to pl. 83; those in his second folio work from pl. 7 to 44, and from pl. 50 to 56; the originals of many of these in the British Museum; several monuments procured for the British Museum by Mr. Loftus; and a series of unpublished drawings by Mr. Boutcher in the same great national collection.[2]

The most obvious characteristic of this period, when we compare it with the preceding one, is the advance which the



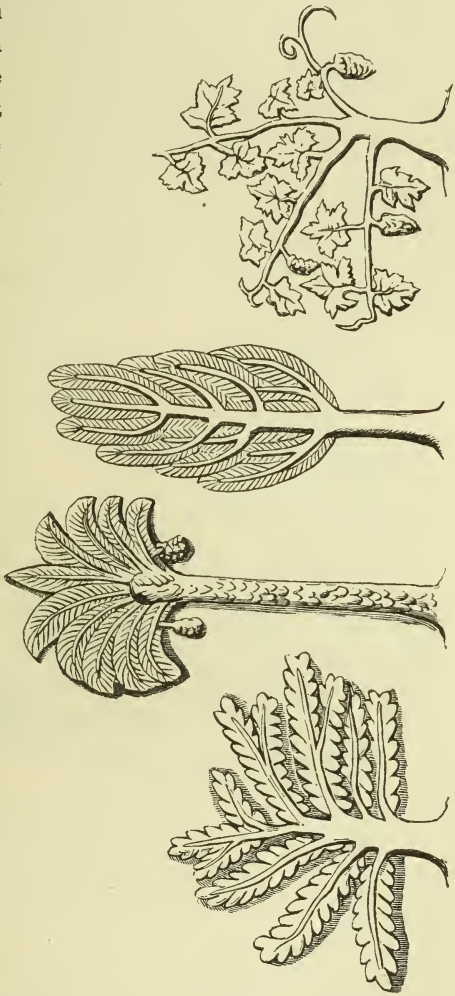
Trees (Nimrud).

artists have made in their vegetable forms, and the pre-Raphaelite accuracy which they affect in all the accessories of their representations. In the bas-reliefs of the first period we have, for the most part, no backgrounds. Figures alone occupy

[1] *Monument de Ninive*, Paris, 1849. The descriptive letter-press is by M. Botta. The drawings were executed by M. Flandin, and engraved by MM. Sellier, Péronard, Oury, and others.

[2] These drawings have been kindly placed at my disposal by Mr. Vaux, of the Antiquities' Department.

the slabs, or figures and buildings. In some few instances water is represented in a very rude fashion;[3] and once or twice only do we meet with trees,[4] which, when they occur, are of the poorest and strangest character (see page 348). In the second period, on the contrary, back-grounds are the rule, and slabs without them form the exception. The vegetable forms are abundant and varied, though still somewhat too conventional. Date-palms, firs, and vines are delineated with skill and spirit; other varieties are more difficult to recognise. The character of the countries through which armies march is almost always given[5]—their streams, lakes, and rivers, their hills and mountains, their trees, and in the case of marshy districts, their tall reeds. At the same time, animals in the wild state are freely introduced without their having any bearing on the general subject of the picture. The water



Trees (Koyunjik).

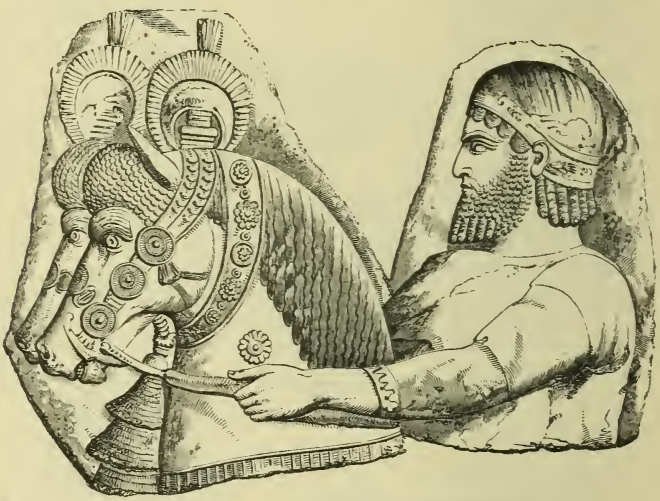
[3] See Mr. Layard's *Monuments*, 1st Series, Plates 15, 16, 33, and 39 B.

[4] Ibid. Plates 13, 14, and 33.

[5] This is particularly the case in the sculptures of Sennacherib. In those of Sargon, backgrounds are still rather the exception than the rule.

teems with fish, and, where the sea is represented, with crabs, turtle, star-fish, sea serpents, and other monsters.[6] The woods are alive with birds; wild swine and stags people the marshes.[7] Nature is evidently more and more studied; and the artist takes a delight in adorning the scenes of violence, which he is forced to depict, with quiet touches of a gentle character—rustics fishing or irrigating their grounds, fish disporting themselves, birds flying from tree to tree, or watching the callow young which look up to them from the nest for protection.[8]

In regard to human forms, no great advance marks this period. A larger variety in their attitudes is indeed to be traced,



Groom and horses, Khorsabad (after Layard).

and a greater energy and life appears in most of the figures; but there is still much the same heaviness of outline, the same over-muscularity, and the same general clumsiness and want of grace. Animal forms show a much more considerable improvement. Horses are excellently portrayed, the attitudes being varied, and the heads especially delineated with great spirit (see

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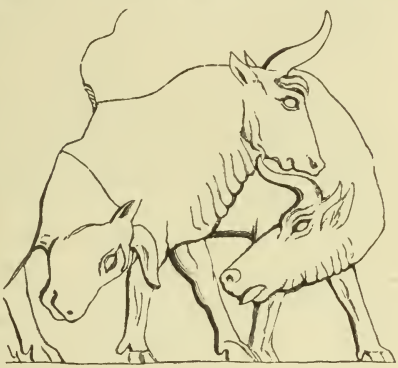
[6] Botta, *Monument de Ninive*, vol. i. Plates 32 to 34; Layard, *Monuments of Nineveh*, 1st Series, Pl. 71.

[7] See the representations on pages 40 and 225.

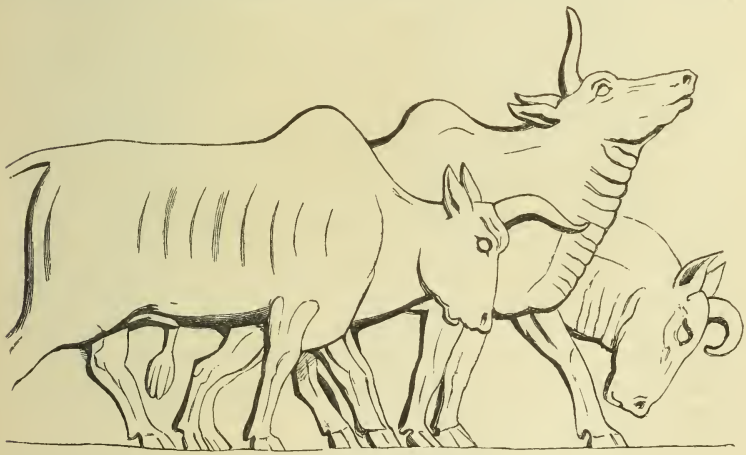
[8] *Mon. of Nineveh*, 2nd Series, Pl. 40.

opposite). Mules and camels are well expressed,[9] but have scarcely the vigour of the horses. Horned cattle, as oxen, both with and without humps, goats, and sheep are very skilfully treated, being represented with much character, in natural yet varied attitudes, and often admirably grouped.



Assyrian oxen (Koyunjik).

The composition during this period is more complicated and more ambitious than during the preceding one; but it may be questioned whether it is so effective. No single scene of the time can compare for grandeur with the lion-hunt above described.[10] The battles and sieges



Assyrian oxen (Koyunjik).

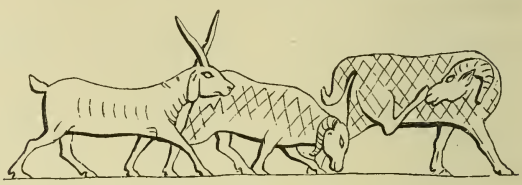
are spirited, but want unity; the hunting-scenes are comparatively tame;[11] the representations of the transport of colossal

[9] See above, pp. 230, 233.

[10] Pages 344, 345.

[11] No lion-hunt nor bull-hunt has been found in the sculptures of this time. The chase seems confined to hares, gazelles, and birds.

bulls possess more interest than artistic merit. On the other hand, the manipulation is decidedly superior; the relief is higher, the outline is more flowing, the finish of the features



Assyrian goat and sheep (Koyunjik).

more delicate. What is lost in grandeur of composition is, on the whole, more than made up by variety, naturalness, improved handling, and higher finish.

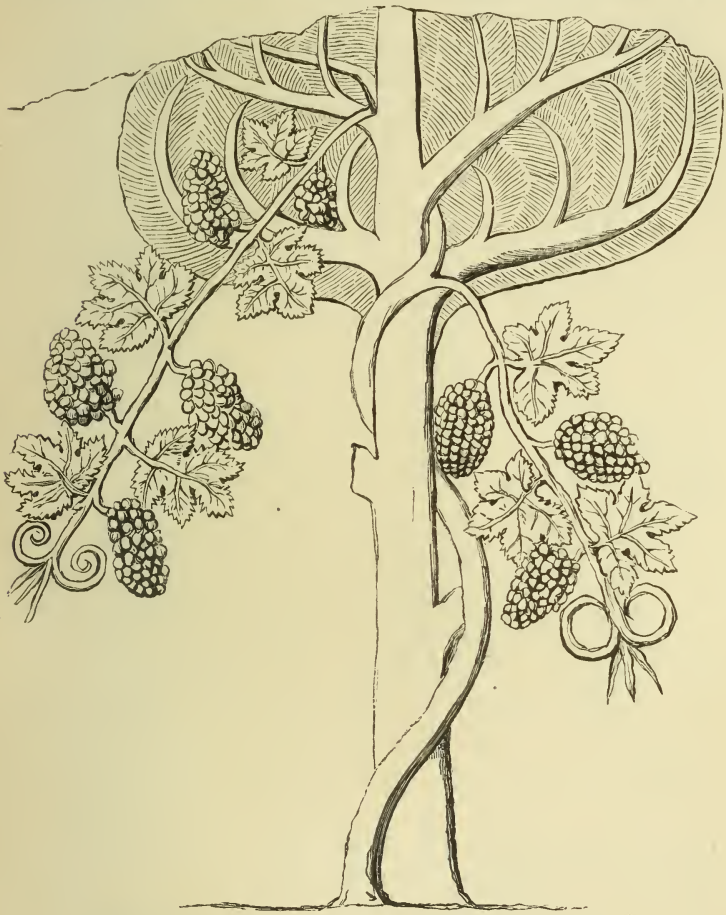
The highest perfection of Assyrian art is in the third period, which extends from B.C. 667 to about B.C. 640. It synchronises with the reign of Asshur-bani-pal, the son of Esar-haddon, who appears to have been contemporary with Gyges in Lydia,[1] and with Psammetichus in Egypt. The characteristics of the time are a less conventional type in the vegetable forms, a wonderful freedom, spirit, and variety in the forms of animals, extreme minuteness and finish in the human figures, and a delicacy in the handling considerably beyond that of even the second or middle period. The sources illustrative of this stage of the art consist of the plates in Mr. Layard's 'Second Series of Monuments,' from pl. 45 to 49, the originals of these in the British Museum, the noble series of slabs obtained by Mr. Loftus from the northern palace of Koyunjik, and of the drawings made from them[2] and from other slabs, which were in a more damaged condition, by Mr. Boutcher, who accompanied Mr. Loftus in the capacity of artist.

Vegetable forms are, on the whole, somewhat rare. The artists have relinquished the design of representing scenes with

[1] See below, chapter ix. There is reason to believe that the Eusebian date for Gyges (B.C. 698 to B.C. 662) is more correct than the Herodotean—B.C. 724 to B.C. 686.

[2] These drawings, which are in the British Museum, having been taken when the slabs were freshly exhumed, often preserve features which have disappeared during the transport of the originals and their preparation for exhibition. By the kindness of Mr. Vaux, the free use of the drawings has been allowed to the author of the present work.

perfect truthfulness, and have recurred as a general rule, to the plain backgrounds of the first period. This is particularly the case in the hunting-scenes, which are seldom accompanied by any landscape whatsoever. In processional and military scenes



Vine trained on a fir (?), from the North Palace, Koyunjik.

landscape is introduced, but sparingly; the forms, for the most part, resembling those of the second period.[3] Now and then,

[3] See the illustration (No. V.) on page 310, which belongs to this time; and compare the trees with those represented, supra, p. 349.

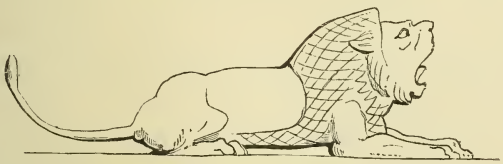
however, in such scenes the landscape has been made the object of special attention, becoming the prominent part, while the human figures are accessories. It is here that an advance in art is particularly discernible. In one set of slabs a garden seems to be represented. Vines are trained upon trees, which may be either firs or cypresses, winding elegantly around their stems, and on either side letting fall their pendant branches laden with fruit. Leaves, branches, and tendrils are delineated with equal truth and finish, a most pleasing and graceful effect being thereby produced. Irregularly among the trees occur groups of lilies, some in bud, some in full blow, all natural, graceful, and spirited.

Lilies, from the North Palace, Koyunjik.

It is difficult to do justice to the animal delineation of this period, without reproducing before the eye of the reader the entire series of reliefs and drawings which belong to it. It is the infinite variety in the attitudes, even more than the truth and naturalness of any particular specimens, that impresses us as we contemplate the series. Lions, wild asses, dogs, deer, wild goats, horses are represented in profusion; and we scarcely find a single form which is repeated. Some specimens have been already given, as the hunted stag and hind on page 224, and the startled wild ass on page 223. Others will occur among the illustrations of the next chapter. For the present it may suffice to draw attention to the spirit of the two falling asses in the subjoined woodcut (No. I.), and of the crouching lion in the woodcut No. II. (opposite); to the life-like force of both ass and hounds in the

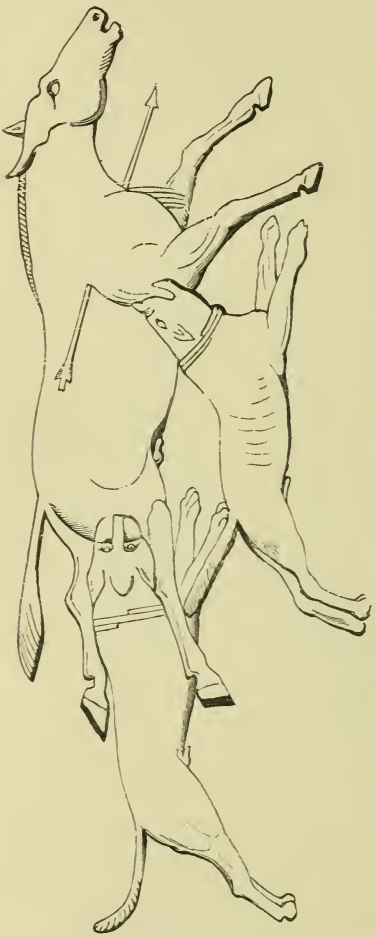
representation No. III. (overleaf), and here particularly to the bold drawing of one of the dog's heads in full, instead of in profile—a novelty now first occurring in the bas-reliefs. As instances of still bolder attempts at unusual attitudes, and at the same time of a certain amount of fore-shortening, two further illustrations are appended. The sorely-wounded lion in the first (p. 357) turns his head piteously towards the cruel shaft, while he totters to his fall, his limbs failing him, and his eyes beginning to close. The more slightly-stricken king of beasts in the second (p. 358), urged to fury by the smart of his wound, rushes at the chariot whence the shaft was sped, and in his mad agony springs upon a wheel, clutches it with his two fore-paws, and frantically grinds it between his teeth. Assyrian art, so far as it is as yet known, has no finer specimen of animal drawing than this head, which may challenge comparison with anything of the kind that either classic or modern art has produced.

No. I. Death of two wild asses, from the North Palace, Koyunjik.



No. II. Lion about to spring, from the North Palace, Koyunjik.

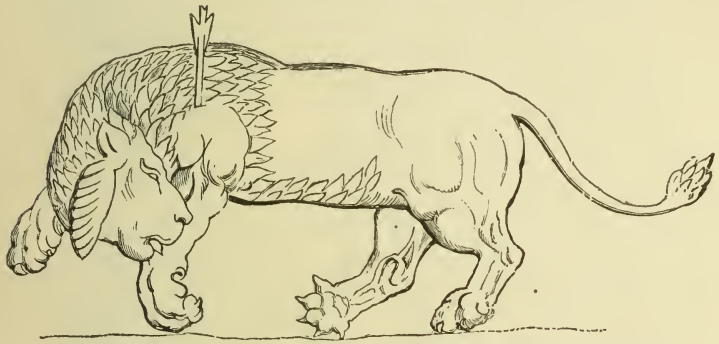
As a specimen at once of animal vigour and of the delicacy and finish of the workmanship in the human forms of the time, a bas-relief of the king receiving the spring of a lion, and shooting an arrow into his mouth, while a second lion advances at a rapid pace a little behind the first, may be adduced (see page 359). The boldness of the composition, which represents the first lion actually in mid-air, is remarkable; the drawing of the brute's fore-paws, expanded to seize his intended prey, is life-like and very spirited, while the head is massive and full of vigour. There is something noble in the calmness of the monarch contrasted with the comparative eagerness of the attendant, who stretches forward with shield and spear to protect his master from destruction, if the arrow fails. The head of the king is, unfortunately, injured; but the remainder of the figure is perfect; and here, in the elaborate ornamentation of the whole dress, we have an example of the careful finish of the time—a finish which is so light and delicate that it does not interfere with the general effect, being scarcely visible at a few yards' distance.



No. III. Wounded wild-ass, seized by hounds, from the North Palace, Koyunjik.

The faults which still remain in this best period of Assyrian art are heaviness and stiffness of outline in the human forms;

a want of expression in the faces, and of variety and animation in the attitudes; and an almost complete disregard of perspective. If the worst of these faults are anywhere overcome it would seem to be in the land lion-hunt, from which the noble head represented below is taken;[4] and in the river-hunt of the same beast, found on a slab too much injured to be removed, of which a representation is given on page 361. From what appears to have remained of the four figures towards the prow of the boat, we may conclude that there was a good deal of animation here. The drawing must certainly have been less stiff than usual; and if there is not much variety in the atti-



No. I. Wounded lion, about to fall, from the North Palace, Koyunjik.

tudes of the three spearmen in front, at any rate those attitudes contrast well, both with the stillness of the unengaged attendants in the rear, and with the animated but very different attitude of the king.

Before the subject of Assyrian sculpture is dismissed, it is necessary to touch the question, whether the Assyrians applied colour to statuary, and if so, in what way and to what extent. Did they, like the Egyptians,[1] cover the whole surface of the stone with a layer of stucco, and then paint the sculptured parts

[4] See page 358. A representation of the whole scene would have been given, had this work been on a larger scale; but it is impossible to do justice to the highly-finished sculptures of this time within the limits of an ordinary octavo. The scene itself may be studied in the British Museum. It occupies a portion of the eastern wall in the *underground* Assyrian apartment.

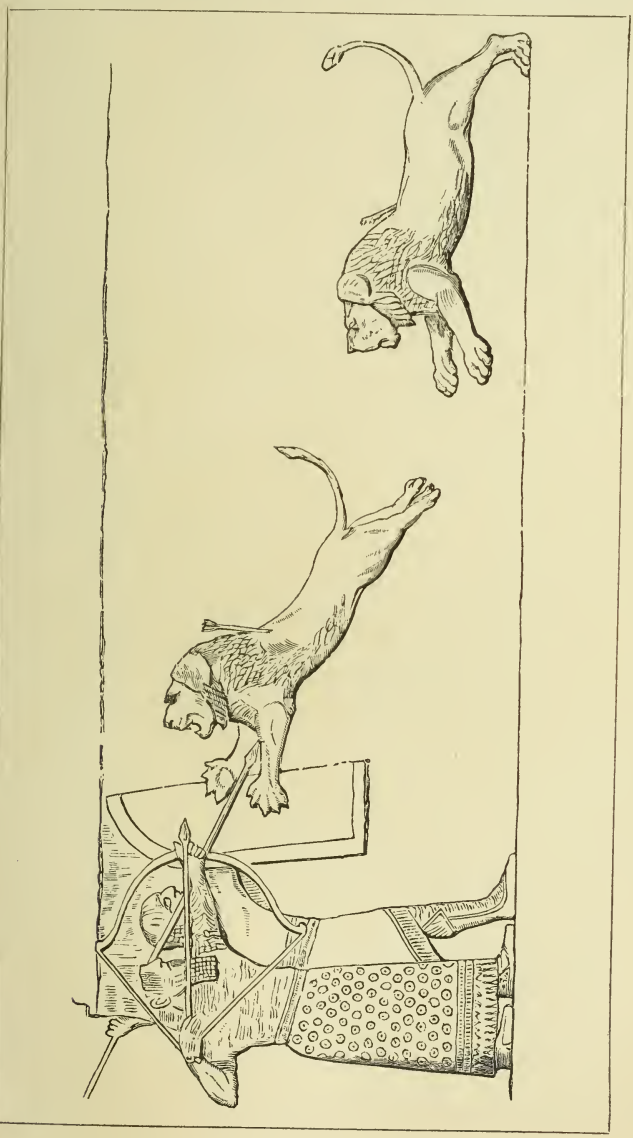
[1] See Wilkinson's *Ancient Egyptians*, 1st Series, vol. iii. p. 300.

with strong colours—red, blue, yellow, white, and black? Or did they, like the Greeks,[2] apply paint to certain portions of

No. II. Wounded lion biting a chariot-wheel, from the North Palace, Koyunjik.

[2] See Wilkinson's *Ancient Egyptians*, 1st Series, vol. iii. p. 299. Wornum, in Smith's *Dictionary of Greek and Roman Antiquities* (ad voc. PICTURA), goes somewhat further than Wilkinson; but still maintains that the Greeks did not colour the flesh of statues.

their sculptures only, as the hair, eyes, beard, and draperies? Or, finally, did they simply leave the stone in its natural condition, like the Italians and the modern sculptors generally?



King shooting a lion on the spring, from the North Palace, Koyunjik.

The present appearance of the sculptures is most in accordance with the last of these three theories, or at any rate with that theory very slightly modified by the second. The slabs now offer only the faintest and most occasional traces of colour. The evidence, however, of the original explorers is distinct, that *at the time of discovery* these traces were very much more abundant. Mr. Layard observed colour at Nimrud on the hair, beard, and eyes of the figures, on the sandals and the bows, on the tongues of the eagle-headed mythological emblems, on a garland round the head of a winged priest (?), and on the representation of fire in the bas-relief of a siege.[3] At Khorsabad, MM. Botta and Flandin found paint on the fringes of draperies, on fillets, on the mitre of the king, on the flowers carried by the winged figures, on bows and spear-shafts, on the harness of the horses, on the chariots, on the sandals, on the birds, and sometimes on the trees.[4] The torches used to fire cities, and the flames of the cities themselves were invariably coloured red. M. Flandin also believed that he could detect, in some instances, a faint trace of yellow ochre on the flesh and on the background of bas-reliefs, whence he concluded that this tint was spread over every part not otherwise coloured.[5]

It is evident, therefore, that the theory of an absence of colour, or of a very rare use of it, must be set aside. Indeed, as it is certain that the upper portions of the palace-walls, both inside and outside, were patterned with coloured bricks, covering the whole space above the slabs, it must be allowed to be extremely improbable that at a particular line colour would suddenly and totally cease. The laws of decorative harmony forbid such abrupt transitions; and to these laws all nations with any taste instinctively and unwittingly conform. The Assyrian reliefs were therefore, we may be sure, to some extent coloured. The real question is, to what extent—in the Egyptian or in the classical style?

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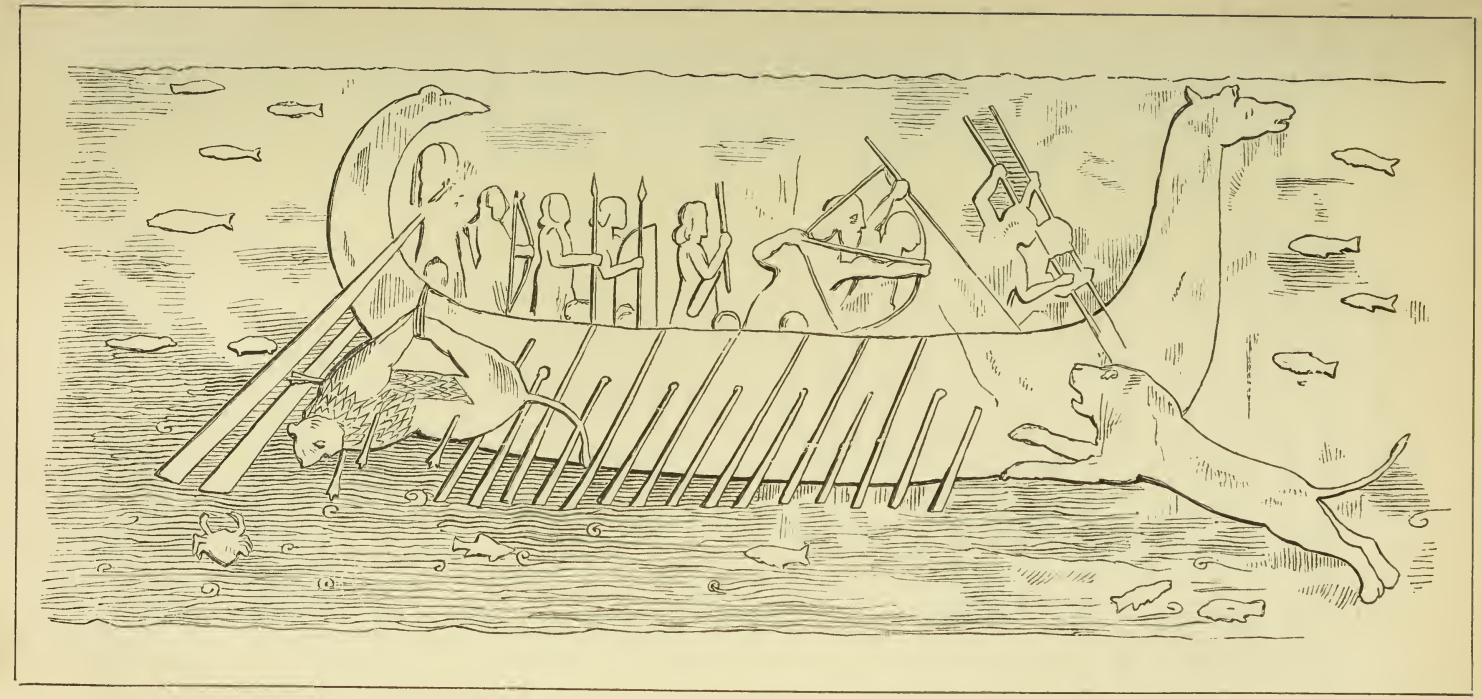
[3] *Nineveh and its Remains*, vol. ii. p. 306.

[4] See M. Botta's *Monument de Ninive*, Plates 12, 14, 43, 53, 61, 62, 63, &c. Compare the general statement, vol. v. p. 178.

[5] See his *Voyage archéologique à Ninive*, in the *Revue des Deux Mondes*, for July, 1845, p. 106.



Lion-hunt in a river, from the North Palace, Koyunjik (ab. B.C. 660).

In Mr. Layard's First Series of 'Monuments,' a preference was expressed for what may be called the Egyptian theory. In the Frontispiece of that work, and in the second Plate, containing the restoration of a palace interior, the entire bas-reliefs were represented as strongly coloured. A jet-black was assigned to the hair and beards of men and of all human-headed figures, to the manes and tails of horses, to vultures, eagle-heads, and the like; a coarse red-brown to winged lions, to human flesh, to horses' bodies, and to various ornaments; a deep yellow to common lions, to chariot-wheels, quivers, fringes, belts, sandals and other portions of human apparel; white to robes, helmets, shields, tunics, towns, trees, &c.; and a dull blue to some of the feathers of winged lions and genii, and to large portions of the ground from which the sculptures stood out. This conception of Assyrian colouring, framed confessedly on the assumption of a close analogy between the ornamentation of Assyria and that of Egypt,[6] was at once accepted by the unlearned, and naturally enough was adopted by most of those who sought to popularise the new knowledge among their countrymen. Hence the strange travesties of Assyrian art which have been seen in so-called "Assyrian Courts," where all the delicacy of the real sculpture has disappeared, and the spectator has been revolted by grim figures of bulls and lions, from which a thick layer of coarse paint has taken away all dignity, and by reliefs which, from the same cause, have lost all spirit and refinement.

It is sufficient objection to the theory here treated of, that it has no solid basis of fact to rest upon. Colour has only been *found* on portions of the bas-reliefs, as on the hair and beards of men, on head-ornaments, to a small extent on draperies, on the harness of horses, on sandals, weapons, birds, flowers, and the like. Neither the flesh of men, nor the bodies of animals, nor the draperies generally, nor the backgrounds (except perhaps at Khorsabad [7]), present the slightest appearance of having been

[6] *Monuments of Nineveh*, 1st Series, Description of the Plates, p. 1.

[7] The opinion of M. Flandin, that an ochre tint covered the flesh and the backgrounds at Khorsabad, seems to have been derived from a particular instance, where, according to M. Botta, the colouring was accidental, and dated from a time subsequent to the ruin of the palace (*Monument de Ninive*, vol. v. p. 179).

touched by paint. It is inconceivable that, if these portions of the sculptures were universally, or even ordinarily, coloured, the colour should have so entirely disappeared in every instance. It is moreover inconceivable that the sculptor, if he knew his work was about to be concealed beneath a coating of paint, should have cared to give it the delicate elaboration which is found at any rate in the later examples. All leads to the conclusion that in Assyrian as in classical sculpture, colour was sparingly applied, being confined to such parts as the hair, eyes, and beards of men, to the fringes of dresses, to horse-trappings, and other accessory parts of the representations. In this way the lower part of the walls was made to harmonise sufficiently with the upper portion, which was wholly coloured, but chiefly with pale hues. At the same time a greater distinctness was given to the scenes represented upon the sculptured slabs, the colour being judiciously applied to disentangle human from animal figures, dress from flesh, or human figures from one another.

The colours actually found upon the bas-relief are four only—red, blue, black, and white.[1] The red is a good bright tint, far exceeding in brilliancy that of Egypt. On the sculptures of Khorsabad it approaches to vermilion, while on those of Nimrud it inclines to a crimson or lake tint.[2] It is found alternating with the natural stone on the royal parasol and mitre;[3] with blue on the crests of helmets,[4] the trappings of horses,[5] on flowers,[6] sandals,[7] and on fillets;[8] and besides, it occurs, unaccompanied by any other colour, on the stems and branches of trees,[9] on the claws of birds,[10] the shafts of spears and arrows,[11]

[1] "On the sculptures I have only found black, white, red, and blue," says Mr. Layard (*Nineveh and its Remains*, vol. ii. p. 310); "and these colours alone were used in the painted ornaments of the upper chambers at Nimrud. At Khorsabad, *green and yellow continually occurred* on the bas-reliefs; at Koyunjik, there were no traces whatever of colour." But, in opposition to the statement in italics, M. Botta, the explorer of Khorsabad, observes, "Nous n'avons trouvé à Khorsabad sur les sculptures d'autres couleurs que le rouge, le bleu, et le noir." (*Monument*, vol. v. p. 178.) The green and yellow were confined to the enamelled bricks.

[2] Layard, *Nineveh and its Remains*, vol. ii. p. 311.

[3] Botta, *Monument de Ninive*, Plates 12, 63, and 113.

[4] Ibid. Plate 61.

[5] Ibid. Plates 53, 62, 63, &c.

[6] Ibid. Plates 43 and 113.

[7] Ibid. Plate 14.

[8] Ibid. Plate 43.

[9] Ibid. Plates 110, 113, and 114.

[10] Ibid. Plates 110 and 114.

[11] Ibid. Plates 61 and 65.

on bows,[1] belts,[2] fillets,[3] quivers,[4] maces,[5] reins,[6] sandals,[7] flowers,[8] and the fringe of dresses.[9] It is uncertain whence the colouring matter was derived; perhaps the substance used was the suboxide of copper, with which the Assyrians are known to have coloured their red glass.[10]

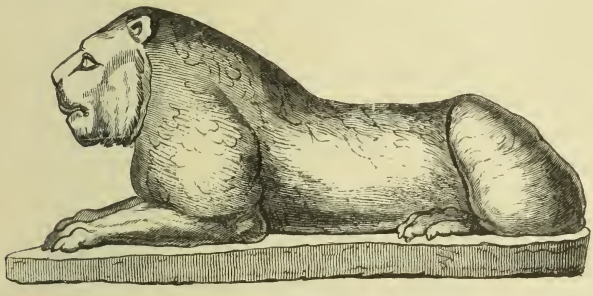
The blue of the Assyrian monuments is an oxide of copper,[11] sometimes containing also a trace of lead.[12] Besides occurring in combination with red in the cases already mentioned, it was employed to colour the foliage of trees,[13] the plumage of birds,[14] the heads of arrows,[15] and sometimes quivers[16] and sandals.[17]

White occurs very rarely indeed upon the sculptures. At Khorsabad it was not found at all; at Nimrud it was confined to the inner part of the eye on either side of the pupil,[18] and in this position it occurred only on the colossal lions and bulls, and a very few other figures. On bricks and pottery it was frequent, and there it is found to have been derived from tin;[19] but it is uncertain whether the white of the sculptures was not derived from a commoner material.[20]

Black is applied in the sculptures chiefly to the hair, beards, and eyebrows of men.[21] It was also used to colour the eyeballs, not only of men, but also of the colossal lions and bulls.[22] Sometimes, when the eyeball was thus marked, a line of black was further carried round the inner edge of both the upper and the lower eyelid.[23] In one place black bars have been introduced to ornament an antelope's horns.[24] On the older sculptures black

[1] Botta, *Monument de Ninive*, Plates 61 and 62.
[2] Ibid. Plates 62, 65, and 114.
[3] Ibid. Plates 12, 14, 62, and 65.
[4] Ibid. Plate 63.
[5] Ibid. Plate 114.
[6] Ibid. Plate 53.
[7] Ibid. Plate 81.
[8] Ibid. Plates 74 and 75.
[9] Ibid. Plate 63.
[10] See Dr. Percy's note in Mr. Layard's *Nineveh and Babylon*, p. 672.
[11] Layard, *Nineveh and its Remains*, vol. ii. p. 310. Birch, *Ancient Pottery*, vol. i. p. 127.
[12] Ibid. p. 149.
[13] Botta, *Monument*, Plates 110, 113, and 114.
[14] Ibid. Plates 110 and 114.
[15] Ibid. Plate 61.
[16] Ibid. Plate 62. [17] Ibid. Plate 14.
[18] Layard, *Nineveh and its Remains*, vol. ii. p. 312, note.
[19] Birch, *Ancient Pottery*, vol. i. p. 127.
[20] Mr. Layard conjectures that it was obtained, as it is in the country to this day, by burning the alabaster or gypsum. (*Nineveh and its Remains*, vol. ii. p. 311.)
[21] Ibid. p. 312. For instances, see Layard's *Monuments*, 1st Series, Plate 92; Botta, *Monument*, Plates 12 and 43.
[22] *Nineveh and its Remains*, vol. ii. p. 313.
[23] *Monuments of Nineveh*, 1st Series, Plate 92.
[24] Botta, *Monument*, Plate 43.

was also the common colour for sandals, which however were then edged with red.[1] The composition of the black is uncertain. Browns upon the enamelled bricks are found to have been



Bronze lion, from Nimrud.

derived from iron;[2] but Mr. Layard believes the black upon the sculptures to have been, like the Egyptian, a bone black mixed with a little gum.[3]

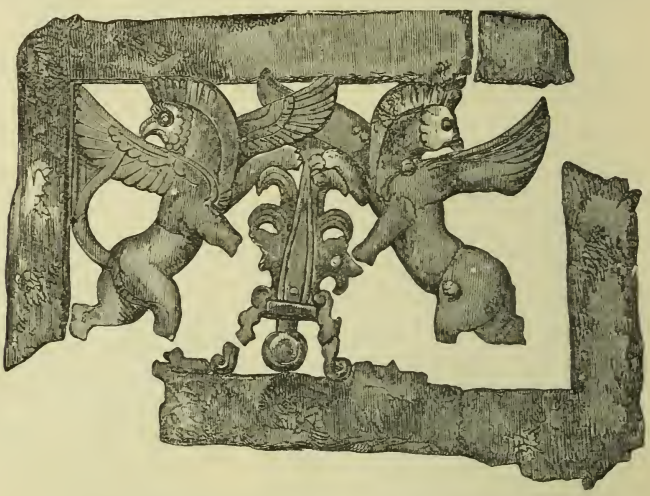
Fragments of bronze ornaments of the throne, from Nimrud (after Layard).

The ornamental metallurgy of the Assyrians deserves attention next to their sculpture. It is of three kinds, consisting, in the

[1] *Nineveh and its Remains*, vol. ii. p. 312, note.
[2] Birch, l. s. c.
[3] *Nineveh and its Remains*, vol. ii. p. 311.

first place, of entire figures, or parts of figures, cast in a solid shape; secondly, of castings in a low relief; and thirdly, of embossed work wrought mainly with the hammer, but finished by a sparing use of the graving-tool.

The solid castings are comparatively rare, and represent none but animal forms. Lions, which seem to have been used as weights, occur most frequently.[4] None are of any great size; nor have we any evidence that the Assyrians could cast large masses of metal. They seem to have used castings, not (as the



Bronze casting, from the throne, Nimrud (after Layard).

Greeks and the moderns) for the greater works of art, but only for the smaller. The forms of the few casts which have come down to us are good, and are free from the narrowness which characterises the representations in stone.[5]

Castings in a low relief formed the ornamentation of thrones, stools,[6] and sometimes probably of chariots.[1] They consisted of

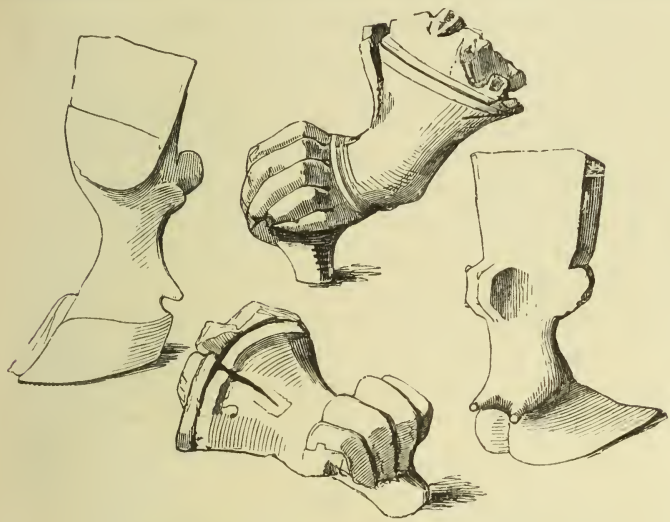
[4] Mr. Layard discovered sixteen of these lions in one place. (*Nineveh and its Remains*, vol. i. p. 128.) They had all rings affixed to their backs, which seemed to show the purpose for which they were intended. The largest of these lions was about a foot in length.

[5] Supra, p. 339.

[6] See Layard's *Nineveh and its Remains*, vol. ii. p. 301; Botta, *Monument*, Plate 19.

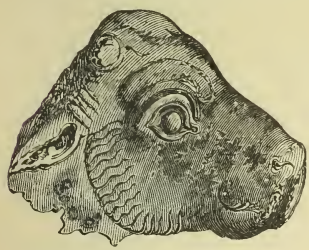
[1] Botta, Plate 17. It is uncertain whether the ornaments in this case, and in those referred to in the last note, were

animal and human figures, winged deities, griffins, and the like. The castings were chiefly in open work, and were attached to

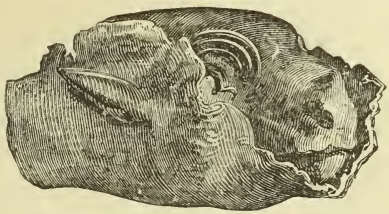


Feet of tripods in bronze and iron (after Layard).

the furniture which they ornamented by means of small nails. They have no peculiar merit, being merely repetitions of the



Bronze bull's head from throne (after Layard).



Bronze head, part of throne, showing bitumen inside (after Layard).

forms with which we are familiar from their occurrence on embroidered dresses and on the cylinders.

The embossed work of the Assyrians is the most curious and

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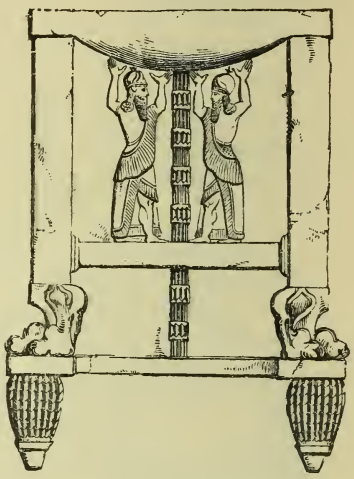
cast or embossed, since we have only the representations, not the originals themselves. The throne ornaments, however, were actually found (Layard, *Nin. and Bab.* pp. 198–200). They were castings in bronze.

the most artistic portion of their metallurgy. Sometimes it consisted of mere heads and feet of animals, hammered into shape upon a model composed of clay mixed with bitumen.

End of a sword-sheath.
(N.-W. Palace, Nimrud.)



Stool or chair (Khorsabad).

Sometimes it extended to entire figures, as (probably) in the case of the lions clasping each other, so common at the ends of sword-sheaths (see above), the human figures which ornament the sides of chairs or stools, and the like.[2] Occasionally it was of a less solid, but at the same time of a more elaborate character. In a palace inhabited by Sargon at Nimrud, and in close juxtaposition with a monument certainly of his time,[3] were discovered by Mr. Layard a number of dishes, plates, and bowls, embossed with great taste and skill, which are among the most elegant specimens of Assyrian art discovered during the recent researches. Upon

Engraved scarab in centre of cup.
(N.-W. Palace, Nimrud.)

[2] Here again we cannot be certain whether the sculptures represent embossed work or castings. In delicate fabrics, like sword-sheaths, the former seems more probable.

[3] Layard, *Nin. and Bab.* p. 196.

these were represented sometimes hunting-scenes, sometimes combats between griffins and lions, or between men and lions, sometimes landscapes with trees and figures of animals, sometimes mere rows of animals following one another. One or two representations from these bowls have been already given.[4] They usually contain a star or scarab in the centre, beyond which is a series of bands or borders, patterned, most commonly with figures. It is impossible to give an adequate idea of the delicacy and spirit of the drawings, or of the variety and elegance of the other patterns, in a work of moderate dimensions like the present. Mr. Layard, in his Second Series of 'Monuments,' has done justice to the subject by pictorial representation,[5] while in his 'Nineveh and Babylon' he has described the more important of the vessels separately.[6] The curious student will do well to consult these two works, after which he may examine with advantage the originals in the British Museum.

One of the most remarkable features observable in this whole series of monuments, is its semi-Egyptian character. The occurrence of the scarab has been just noticed. It appears on the bowls frequently, as do sphinxes of an Egyptian type; while sometimes heads and head-dresses purely Egyptian are found, as the subjoined,[7] which are well-known forms, and have nothing Assyrian about them; and in one or two instances we even meet with hieroglyphics,[8] the *onk* (or symbol of life), the ibis, &c. These facts may seem at first sight to raise a

No. I. No. II.

Egyptian head-dresses on bronze dishes, from Nimrud.

[4] Supra, pp. 223 and 225.

[5] Plates 57 to 67. The drawings by Mr. Prentice, now in the British Museum, are still more beautiful than these plates, since they show the wonderful colouring of the bronzes at the time of their arrival.

[6] Pages 185–190.

[7] Mr. Layard calls No. I. a head of Athor (*Nin. and Bab.* p. 187); but there are no sufficient grounds for the identification. The head resembles the ordinary mummy type. The head-dress No. II. is the well-known double crown, worn both by kings and gods, representing the sovereignty over both the Upper and the Lower country. (Wilkinson, *Ancient Egyptians*, vol. iii. p. 354.)

[8] Layard, *Monuments*, 2nd Series, Plate 61, B; *Nin. and Bab.* p. 187. On the *ank* or *onk*, see Wilkinson, vol. v. p. 283.

great question—namely, whether, after all, the art of the Assyrians was really of home growth, or was not rather imported from the Egyptians, either directly or by way of Phœnicia. Such a view has been sometimes taken; but the most cursory study of the Assyrian remains, *in chronological order*, is sufficient to disprove the theory, since it will at once show that the earliest specimens of Assyrian art are the most un-Egyptian in character. No doubt there are certain analogies even here, as the preference for the profile, the stiffness and formality, the ignorance or disregard of perspective, and the like; but the analogies are exactly such as would be tolerably sure to occur in the early efforts of any two races not very dissimilar to one another, while the *little* resemblances, which alone prove connexion, are entirely wanting. These do not appear until we come to monuments which belong to the time of Sargon. when direct connexion between Egypt and Assyria seems to have begun, and Egyptian captives are known to have been transported into Mesopotamia in large numbers.[9] It has been suggested that the entire series of Nimrud vessels is Phœnician, and that they were either carried off as spoil from Tyre and other Phœnician towns, or else were the workmanship of Phœnician captives removed into Assyria from their own country. The Sidonians and their kindred were, it is remarked, the most renowned workers in metal of the ancient world, and their intermediate position between Egypt and Assyria, may, it is suggested, have been the cause of the existence among them of a mixed art, half Assyrian, half Egyptian.[1] The theory is plausible; but upon the whole it seems more consonant with all the facts[2] to regard the series in question as in reality Assyrian, modified from the ordinary style by an influence derived from Egypt. Either

[9] Isaiah xx. 4.

[1] Layard, *Nineveh and Babylon*, p. 192.

[2] It is urged that Phœnician characters appear on one of the plates (ibid. p. 188), that the scarab which occurs on so many of them (supra, woodcut on p. 368) is "more of a Phœnician than an Egyptian form" (ib. p. 186), and that some silver bowls of the same character, found in Cyprus, are almost certainly Phœnician (ib. p. 192, note). But these last may well be Assyrian, since some Assyrian remains have certainly been brought from the island; and the other points are too doubtful and too minute to set against the strong Assyrian character of the great bulk of the ornaments and figures.

Egyptian artificers—captives probably—may have wrought the bowls after Assyrian models, and have accidentally varied the common forms, more or less, in the direction which was natural to them from old habits; or Assyrian artificers, acquainted with the art of Egypt, and anxious to improve their own from it, may have consciously adopted certain details from the rival country. The workmanship, subjects, and mode of treatment, are all, it is granted, "more Assyrian than Egyptian,"[3] the Assyrian character being decidedly more marked than in the case of the ivories which will be presently considered; yet even in that case the legitimate conclusion seems to be that the specimens are to be regarded as native Assyrian, but as produced abnormally, under a strong foreign influence.

Ear-ring. (N.-W. Palace, Nimrud.)

Assyrian ear-rings. (Khorsabad).

The usual material of the Assyrian ornamental metallurgy is bronze, composed of one part of tin to ten of copper,[4] which are exactly the proportions considered to be best by the Greeks and Romans, and still in ordinary use at the present day. In some instances, where more than common strength was required, as in the legs of tripods and tables, the bronze was ingeniously cast over an inner structure of iron.[5] This practice was unknown to modern metallurgists until the discovery of the Assyrian specimens, from which it has been successfully imitated.[6]

We may presume that, besides bronze, the Assyrians used, to a certain extent, silver and gold as materials for ornamental metal-work. The ear-rings, bracelets, and armlets worn by the kings and the great officers of state were probably of the more

[3] *Nineveh and Babylon*, p. 192. [4] Ibid. p. 191. [5] Ibid. p. 178.
[6] Ibid. p. 191, note.

valuable metal, while the similar ornaments worn by those of minor rank may have been of silver. One solitary specimen only of either class has been found;[7] but Mr. Layard discovered several moulds, with tasteful designs for ear-rings, both at Nimrud and at Koyunjik;[8] and the sculptures show that both in these and the other personal ornaments a good deal of artistic excellence was exhibited. The ear-rings are frequent

Bronze cubes inlaid with gold. (Original size.) After Layard.

in the form of a cross, and are sometimes delicately chased. The armlets and bracelets generally terminate in the heads of rams or bulls, which seem to have been rendered with spirit and taste.

By one or two instances it appears that the Assyrians knew how to inlay one metal with another. The specimens discovered are scarcely of an artistic character, being merely winged scarabæi outlined in gold on a bronze ground.[9] The work, however, is delicate, and the form very much more true to nature than that which prevailed in Egypt.

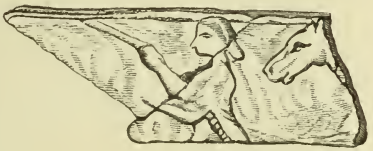
Egyptian scarab (from Wilkinson).

The ivories of the Assyrians are inferior both to their metal castings and to their bas-reliefs. They consist almost entirely

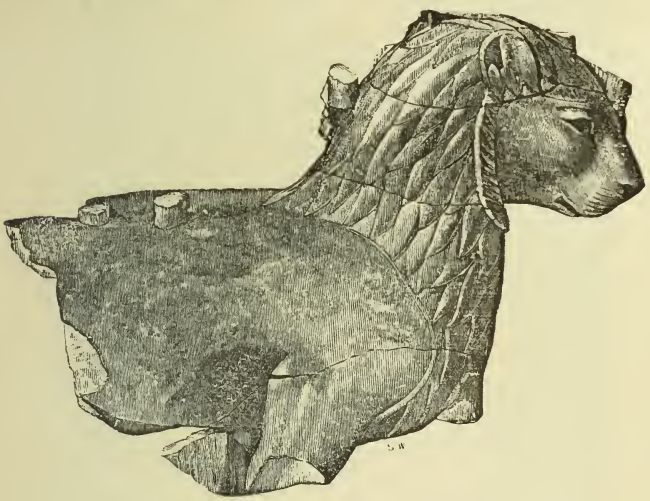
[7] Mr. Layard found a gold ear-ring adorned with pearls, together with a number of purely Assyrian relics, at Koyunjik (*Nineveh and Babylon*, p. 595). He has figured it, p. 597.

[8] Ibid. pp. 595, 596. [9] Ibid. p. 196.

of a single series, discovered by Mr. Layard in a chamber of the North-West Palace at Nimrud, in the near vicinity of slabs on which was engraved the name of Sargon.[10] The most remarkable point connected with them is the thoroughly Egyptian character of the greater number, which, at first sight, have almost the appearance of being importations from the valley of the Nile. Egyptian profiles, head-dresses, fashions of dressing the hair, ornaments, attitudes, meet us at every turn; while sometimes we find the representations of Egyptian gods, and in two cases hieroglyphics within cartouches (see overleaf). A few specimens only are of a distinctly Assyrian type, as a fragment of a



Fragment of ivory panel, from Nimrud.



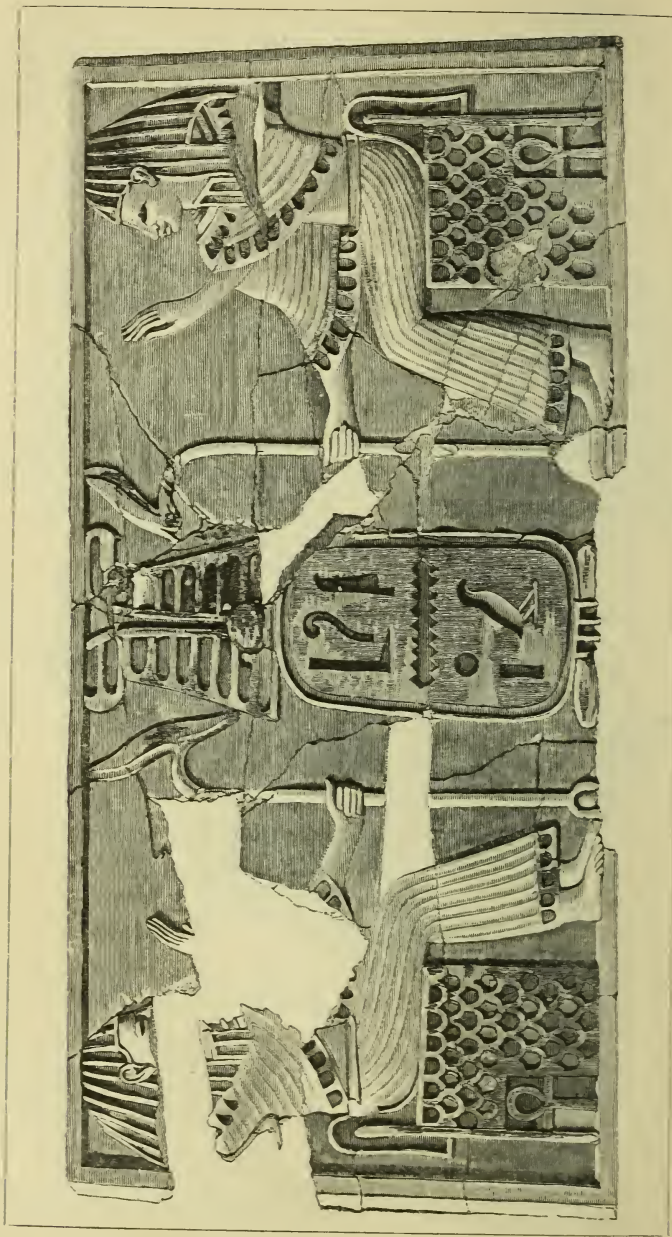
Fragment of a lion in ivory (Nimrud).

panel, figured by Mr. Layard,[1] and one or two others, in which the guilloche border appears.[2] These carvings are usually mere low reliefs, occupying small panels or tablets,

[10] *Nineveh and its Remains*, vol. ii. pp. 8–10 and p. 205. For other discoveries of ivory objects, see *Nineveh and Babylon*, pp. 179, 195, and 362.

[1] *Monuments*. 1st Series, Plate 89, fig. 8.

[2] Ibid. Plate 90, figs. 17 and 22.



Figures and cartouche with hieroglyphics, on an ivory panel, North-West Palace, Nimrud (after Layard).

which were mortised or glued to the woodwork of furniture. They were sometimes inlaid in parts with blue glass, or with blue and green pastes let into the ivory, and at the same time decorated with gilding. Now and then the relief is tolerably high, and presents fragments of forms which seem to have had some artistic merit. The best of these is the fore part of a lion walking among reeds (p. 373), which presents analogies with the early art of Asia Minor. One or two stags' heads have likewise been found, designed and wrought with much spirit and delicacy. It is remarked that several of the specimens show not only a considerable acquaintance with art, but also an intimate knowledge of the method of working in ivory.[3] One head of a lion was "of singular beauty;" but unfortunately it fell to pieces at the very moment of discovery.

Fragment of a stag in ivory (Nimrud).

It is possible that some of the objects here described may be actual specimens of Egyptian art, sent to Sargon as tribute or presents, or else carried off as plunder in his Egyptian expedition. The appearance, however, which even the most Egyptian of them present, on a close examination, is rather that of Asssyrian works imitated from Egyptian models than of genuine Egyptian productions. For instance, in the tablet figured on the page opposite, where we see hieroglyphics within a cartouche, the *onk* or symbol of life,[4] the solar disk, the double ostrich-plume, the long hair-dress called *namms*, and the *tam* or *kukupha* sceptre[5]—all unmistakeable Egyptian features—we observe a style of drapery which is quite unknown in Egypt, while in several respects it is Assyrian, or at least Mesopotamian. It is scanty, like that of all Assyrian robed figures; striped, like the draperies of the Chaldæans and Babylonians; fringed with a

[3] *Nineveh and its Remains*, vol. ii. p. 10.

[4] See above, p. 369. The symbol occurs at the foot of the chairs.

[5] See Mr. Birch's description in Mr. Layard's *Nineveh and its Remains*, vol. ii. p. 11, note.

broad fringe elaborately coloured, as Assyrian fringes are known to have been;[6] and it has large hanging sleeves also fringed, a fashion which appears once or twice upon the Nimrud sculptures.[7] But if this specimen, notwithstanding its numerous and

Royal attendant (Nimrud).

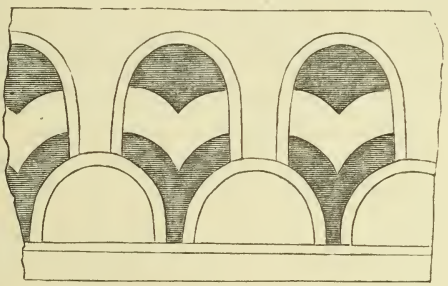
striking Egyptian features, is rightly regarded as Mesopotamian, it would seem to follow that the rest of the series must still more decidedly be assigned to native genius.

The enamelled bricks of the Assyrians are among the most interesting remains of their art. It is from these bricks alone that we are able to judge at all fully of their knowledge and ideas with respect to colour; and it is from them also chiefly that an analysis has been made of the colouring materials employed by the Assyrian artists. The bricks may be divided into two classes—those which are merely patterned, and those which contain designs representing men and animals. The patterned bricks have nothing about them which is very remarkable. They present the usual guilloches, rosettes, bands,

[6] See above, p. 364.

[7] Layard, *Monuments of Nineveh*, 1st Series, Plate 62. The hanging sleeve is, however, worn only on one arm.

scrolls, &c., such as are found in the painted chambers and in the ornaments on dresses, varied with geometrical figures, as circles, hexagons, octagons, and the like; and sometimes with a sort of arcade-work, which is curious, if not very beautiful.[8] The colours chiefly used in the patterns are pale green, pale yellow, dark brown, and white. Now and then an intense blue and a bright red occur, generally together;[9] but these positive hues are rare, and the taste of the Assyrians seems to have led them to prefer, for their patterned walls, pale and dull hues. The same preference appears, even more strikingly, in the bricks on which designs are represented. There the tints almost exclusively used are pale yellow, pale greenish blue, olive-green, white, and a brownish black. It is suggested that the colours have faded,[1] but of this there is no evidence. The Assyrians, when they used the primitive hues, seem, except in the case of red, to have employed subdued tints of them, and red they appear to have introduced very sparingly.[2] Olive-green they affected for grounds, and they occasionally used other half tints. A pale orange and a delicate lilac or pale purple were found at Khorsabad,[3] while brown (as already observed) is far more common on the bricks than black. Thus the general tone of their colouring is quiet, not to say sombre. There is no striving after brilliant effects. The Assyrian artist seeks to



Arcade work, on enamelled brick (Nimrud).

[8] See Mr. Layard's *Monuments*, 1st Series, Plates 84, 86, and 87.

[9] Ibid. Plate 84, figs. 9 and 12.

[1] *Nineveh and Babylon*, p. 166.

[2] There is a curious contrast between the bricks and the sculptures in this respect. In the sculptures there is no yellow, but abundance of red. It is a reasonable conjecture of Mr. Layard's, that in these "some of the red tints which remain were originally laid on to receive gilding." (*Nineveh and its Remains*, vol. ii. p. 313, note.)

[3] *Monument de Ninive*, Plate 155, figs. 3, 5, and 9. Mr. Layard says he found purple and violet on some of the Nimrud bricks (*Nineveh and its Remains*, vol. ii. p. 310); but he does not represent these colours.

please by the elegance of his forms and the harmony of his hues, not to startle by a display of bright and strongly-contrasted colours.

The tints used in a single composition vary from three to five, which latter number they seem never to exceed. The following are the combinations of five hues which occur:—Brown, green, blue, dark yellow, and pale yellow;[4] orange, lilac, white, yellow, and olive-green.[5] Combinations of four hues are much more common: *e.g.* red, white, yellow, and black;[6] deep yellow, brown black, white, and pale yellow;[7] lilac, yellow, white, and green;[8] yellow, blue, white, and brown;[9] and yellow, blue, white, and olive-green.[10] Sometimes the tints are as few as three, the ground in these cases being generally of a hue used also in the figures. Thus we have yellow, blue, and white on a blue ground,[11] and again the same colours on a yellow ground.[12] We have also the simple combinations of white and yellow on a blue ground,[13] and of white and yellow on an olive-green ground.[14]

In every case there is a great harmony in the colouring. We find no harsh contrasts. Either the tones are all subdued, or if any are intense and positive, then all (or almost all) are so. Intense red occurs in two fragments of patterned bricks found by Mr. Layard.[15] It is balanced by intense blue, and accompanied in each case by a full brown and a clear white, while in one case[16] it is further accompanied by a pale green, which has a very good effect. A similar red appears on a design figured by M. Botta.[17] Its accompaniments are white, black, and a full yellow. Where lilac occurs, it is balanced by its complementary colour, yellow,[18] or by yellow and orange,[19] and further accom-

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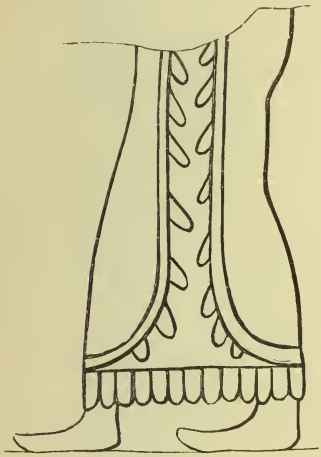
[4] Layard, *Monuments*, 1st Series, Plate 84, fig. 2.
[5] Botta, *Monument de Ninive*, Plate 155, fig. 3. [6] Ibid. fig. 2.
[7] Layard, *Monuments*, 2nd Series, Plate 55, fig. 6.
[8] Botta, *Monument de Ninive*, Plate 155, figs. 5 and 9.
[9] Layard, *Monuments*, 2nd Series, Plate 53, fig. 6.
[10] Ibid. Plate 53, figs. 3 and 4; Plate 54, figs. 12, 13, and 14.
[11] Ibid. Plate 53, figs. 2 and 5; and Plate 54, fig. 9.
[12] Ibid. Plate 53, fig. 1.
[13] Ibid. Plate 54, fig. 7.
[14] Ibid. Plate 54, fig. 8.
[15] Ibid. 1st Series, Plate 84, figs. 9 and 12. [16] Fig. 9.
[17] *Monument de Ninive*, vol. ii. Plate 155, fig. 2.
[18] Ibid. figs. 5 and 9. [19] Ibid. fig. 3.

panied by white. It is noticeable also that bright hues are not placed one against the other, but are separated by narrow bands of white, or brown and white. This use of white gives a great delicacy and refinement to the colouring, which is saved by it, even where the hues are the strongest, from being coarse or vulgar.

The drawing of the designs resembles that of the sculptures, except that the figures are generally slimmer and less muscular. The chief peculiarity is the strength of the outline, which is



No. I.
Human figure, on enamelled brick (from Nimrud).

No. II.
Ram's head, on enamelled brick (from Nimrud).

almost always coloured differently from the object drawn, either white, black, yellow, or brown. Generally it is of an uniform thickness (as in No. I.); sometimes, though rarely, it has that variety which characterises good drawing (as in No. II.). Occasionally there is a curious combination of the two styles, as in the specimen overleaf—the most interesting yet discovered—where the dresses of the two main figures are coarsely outlined in yellow, while the remainder of the design is very lightly sketched in a brownish black.

The size of the designs varies considerably. Ordinarily the figures are small, each brick containing several; but sometimes

a scale has been adopted of such a size that portions of the same figure must have been on different bricks. A foot and leg, brought by Mr. Layard from Nimrud, must have belonged to a man a foot high;[1] while part of a human face discovered in the same locality, is said to indicate, for the form to which it belonged, a height of three feet.[2] Such a size as this is, however, very unusual.

King and attendants, on enamelled brick (from Nimrud).

It is scarcely necessary to state that the designs on the bricks are entirely destitute of *chiaroscuro*. The browns and blacks, like the blues, yellows, and reds, are simply used to express local colour. They are employed for hair, eyes, eyebrows, and sometimes for bows and sandals. The other colours are applied

[1] Birch, *Ancient Pottery*, vol. i. p. 127. The fragment is figured in Mr. Layard's *Monuments*, 1st Series, Plate 84, fig. 2.

[2] Birch, p. 129.

as follows:—Yellow is used for flesh, for shafts of weapons, for horse-trappings, sometimes for horses, for chariots, cups, ear-rings, bracelets, fringes, for wing-feathers, occasionally for helmets, and almost always for the hoofs of horses; blue is used for shields, for horses, for some parts of horse-trappings, armour, and dresses, for fish, and for feathers; white is employed for the inner part of the eye, for the linen shirt worn by men, for the markings on fish and feathers, for horses, for buildings,[3] for patterns on dresses, for rams' heads, and for portions of the tiara of the king. Olive-green seems to occur only as a ground; red only in some parts of the royal tiara; orange and lilac only in the wings of winged monsters.[4] It is doubtful how far we may trust the colours on the bricks as accurately or approximately resembling the real local hues. In some cases the intention evidently is to be true to nature, as in the eyes and hair of men, in the representations of flesh, fish, shields, bows, buildings, &c. The yellow of horses may represent cream-colour, and the blue may stand for grey, as distinct from white, which seems to have been correctly rendered.[5] The scarlet and white of the king's tiara is likely to be true. When, however, we find eyeballs and eyebrows white, while the inner part of the eye is yellow,[6] the blade of swords yellow,[7] and horses' hoofs blue,[8] we seem to have proof that, sometimes at any rate, local colour was intentionally neglected; the artist limiting himself to certain hues, and being therefore obliged to render some objects untruly. Thus we must not conclude from the colours of dresses and horse-trappings on the bricks—which are three only, yellow, blue, and white—that the Assyrians used no other hues than these, even for the robes of their kings.[9] It is far more probable that they employed a variety of tints in their apparel, but did not attempt to render that variety on the ordinary painted bricks.[1]

[3] Buildings are white, but the battlements and some courses in the stone are touched with yellow. A door in one is coloured blue. (Layard, *Monuments*, 2nd Series, Plate 53, fig. 5.)

[4] The authorities for these statements are Layard's *Monuments*, 1st Series, Plates 84 and 87; 2nd Series, Plates 53, 54, and 55; and Botta's *Monument de Ninive*, Plate 155.

[5] See the two fore legs of a horse in a fragment figured by Mr. Layard, *Monuments*, 2nd Series, Plate 54, fig. 14.

[6] Ibid. fig. 7. [7] Ibid. fig. 12.

[8] Ibid. fig. 14.

[9] Yellow, white, and a pale blue or green, are the only colours on the dress of the king figured opposite.

[1] M. Botta's fragment (figured Plate 155, fig. 2) is a unique specimen. Had

The pigments used by the Assyrians seem to have derived their tints entirely from minerals. The opaque white is found to be oxide of tin; the yellow is the antimoniate of lead, or Naples yellow, with a slight admixture of tin; the blue is oxide of copper, without any cobalt; the green is also from copper; the brown is from iron; and the red is a suboxide of copper.[2] The bricks were slightly baked before being painted; they were then taken from the kiln, painted and enamelled on one side only, the flux and glazes used being composed of silicate of soda aided by oxide of lead;[3] thus prepared, they were again submitted to the action of fire, care being taken to place the painted

Impression of ancient Assyrian cylinder, in serpentine.

side upwards,[4] and having been thoroughly baked were then ready for use.

The Assyrian intaglios on stones and gems are commonly of a rude description; but occasionally they exhibit a good deal of delicacy, and sometimes even of grace. They are cut upon serpentine, jasper, chalcedony, cornelian, agate, sienite, quartz, loadstone, amazon-stone, and lapis-lazuli.[5] The usual form of

it contained the robes of the king as well as his head-dress, we should probably have learnt the real hues of the royal garments.

[2] Birch, *Ancient Pottery*, vol. i. p. 128; Layard, *Nineveh and Babylon*, p. 166, note.

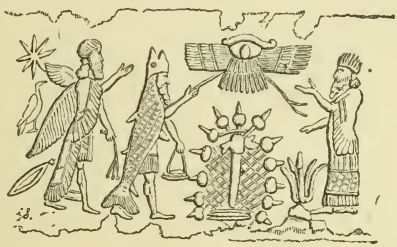
[3] Birch, l. s. c.; Layard, *Nineveh and Babylon*, p. 672.

[4] This is evidenced by the bricks themselves, where we can often see that the melted enamel has run over and trickled down the sides. (See Birch, *Ancient Pottery*, vol. i. 128.)

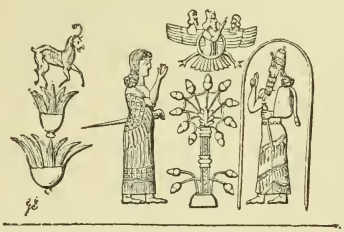
[5] King's *Ancient Gems*, pp. 127–129; Layard's *Nineveh and Babylon*, pp. 602–604.

the stone is cylindrical; the sides, however, being either slightly convex or slightly concave, most frequently the latter. The cylinder is always perforated in the direction of its axis. Besides this ordinary form, a few gems, shaped like the Greek, that is, either round or oval, have been found; and numerous impressions from such gems on sealing-clay shew that they must have been tolerably common.[6] The subjects which occur are mostly the same as those on the sculptures—warriors pursuing their foes, hunters in full chase, the king slaying a lion, winged bulls before the sacred tree, acts of worship and other religious or mythological scenes. There appears to have been a gradual improvement in the workmanship from the earliest period to the time of Sennacherib, when the art culminates. A cylinder found in the ruins of Sennacherib's palace at Koyunjik, which is believed with reason to have been his signet,[7] is scarcely surpassed in delicacy of execution by any intaglio of the Greeks. The design has a good deal of the usual stiffness, though even here something may be said for the ibex or wild-goat, which stands upon the lotus flower to the left; but the

Assyrian seals.



Assyrian cylinder, with the Fish-God.



Royal cylinder of Sennacherib.

[6] See Mr. Layard's *Monuments of Nineveh*, 2nd Series, Plate 69, No. 1 to 32.
[7] Layard, *Nineveh and Babylon*, p. 160; King, *Ancient Gems*, p. 129.

special excellence of the gem is in the fineness and minuteness of its execution. The intaglio is not very deep; but all the details are beautifully sharp and distinct, while they are on so small a scale that it requires a magnifying glass to distinguish them. The material of the cylinder is translucent green felspar, or amazon stone, one of the hardest substances known to the lapidary.[8]

The fictile art of the Assyrians in its higher branches, as employed for directly artistic purposes, has been already considered; but a few pages may be now devoted to the humbler divisions of the subject, where the useful preponderates over the ornamental. The pottery of Assyria bears a general resemblance in shape, form, and use, to that of Egypt; but still it has certain specific differences. According to Mr. Birch, it is, generally speaking, "finer in its paste, brighter in its colour, employed in thinner masses, and for purposes not known in Egypt."[9] Abundant and excellent clay is furnished by the valley of the Tigris, more especially by those parts of it which are subject to the annual inundation. The chief employment of this material by the Assyrians was for bricks, which were either simply dried in the sun, or exposed to the action of fire in a kiln. In this latter case they seem to have been uniformly slack-baked; they are light for their size, and are of a pale-red colour.[1] The clay of which the bricks were composed was mixed with stubble or vegetable fibre, for the purpose of holding it together—a practice common to the Assyrians with the Egyptians[2] and the Babylonians.[3] This fibre still appears in the sun-dried bricks, but has been destroyed by the heat of the kiln in the case of the baked bricks, leaving behind it, however, in the clay traces of the stalks or stems. The size and shape of the bricks vary. They are most commonly square, or nearly so; but occasionally the shape more resembles that of the ancient Egyptian and modern English brick,[4] the width being about

[8] King, Introduction, p. xxxvi.
[9] *Ancient Pottery*, vol. i. p. 105.
[1] Ibid. p. 108.
[2] Wilkinson, in the author's *Herodotus*, vol. ii. p. 215; Birch, *Ancient Pottery*, vol. i. pp. 12, 13. Hence the complaints of the Israelites when they received "no straw for their bricks" (Ex. v. 7–18).
[3] Birch, p. 132.
[4] Ibid. p. 13, and p. 109.

half the length, and the thickness half or two-thirds of the width. The greatest size to which the square bricks attain is a length and width of about two feet.[5] From this maximum they descend by manifold gradations to a minimum of one foot. The oblong bricks are smaller; they seldom much exceed a foot in length, and in width vary from six to seven and a half inches. Whatever the shape and size of the bricks, their thickness is nearly uniform, the thinnest being as much as three inches in thickness, and the thickest not more than four inches or four and a half. Each brick was made in a wooden frame or mould.[7] Most of the baked bricks were inscribed, not however like the Chaldæan,[8] the Egyptian,[9] and the Babylonian,[10] with an inscription in a small square or oval depression near the centre of one of the broad faces, but with one which either covered the whole of one such face, or else ran along the edge. It is uncertain whether the inscription was stamped upon the bricks by a single impression, or whether it was inscribed by the potter with a triangular style. Mr. Birch thinks the former was the means used, "as the trouble of writing upon each brick would have been endless."[1] Mr. Layard, however, is of a different opinion.[2]

In speaking of the Assyrian writing, some mention has been made of the terra-cotta cylinders and tablets, which in Assyria replaced the parchment and papyrus of other nations, being the most ordinary writing material in use through the country.[3] The purity and fineness of the material thus employed is very remarkable, as well as its strength, of which advantage was taken to make the cylinders hollow, and thus at once to render them cheaper and more portable. The terra-cotta of the cylinders and tablets is sometimes unglazed; sometimes the natural surface has been covered with a "vitreous silicious glaze or white coating."[4] The colour varies, being sometimes a bright polished brown, sometimes a pale yellow, sometimes pink, and

[5] Twenty-two inches, according to Mr. Birch (p. 109).

[6] The longest are 14¼ inches. (See *Ancient Pottery*, vol. i. p. 108.)

[7] Ibid. p. 107. [8] Supra, p. 71.

[9] Birch, *Ancient Pottery*, vol. i. pp. 15–18; Wilkinson, *Ancient Egyptians*, 1st Series, vol. ii. p. 97.

[10] Birch, p. 134; Layard, *Nineveh and its Remains*, vol. ii. p. 187.

[1] Birch, p. 109. [2] Layard, l. s. c.

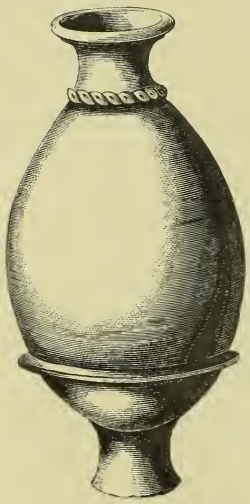
[3] Supra, pp. 263–266.

[4] Birch, *Ancient Pottery*, vol. i. p. 113.

sometimes a very dark tint, nearly black.[5] The most usual colour however for cylinders is pale yellow, and for tablets light

Assyrian vases, amphoræ, &c. (after Birch).

red or pink. There is no doubt that in both these cases the characters were impressed separately by the hand, a small metal style or rod being used for the purpose.



Funereal urn, from Khorsabad.

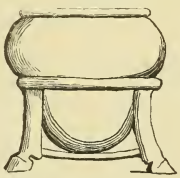
Terra-cotta vessels, glazed and unglazed, were in common use among the Assyrians, for drinking and other domestic purposes. They comprised vases, lamps, jugs, amphoræ, saucers, jars, &c. The material of the vessels is fine, though generally rather yellow in tone.[6] The shapes present no great novelty, being for the most part such as are found both in the old Chaldæan tombs,[7] and in ordinary Roman sepulchres.[8] Among the most elegant are the funereal (?) urns discovered by M. Botta at Khorsabad, which are egg-shaped, with a small opening at top, a short and very scanty

[5] Birch, *Ancient Pottery*, vol. i. p. 115. [6] Ibid. p. 120. [7] Supra, pp. 91, 92. [8] Birch v. 121.

pedestal, and two raised rings, one rather delicately chased, by way of ornament. Another graceful form is that of the large

Nestorian and Arab workmen, with jar discovered at Nimrud.

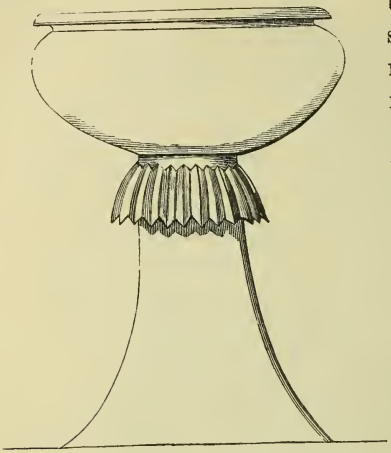
jars uncovered at Nimrud (see above), of which Mr. Layard gives a representation.[1] Still more tasteful are some of the examples which occur upon the bas-reliefs, and seemingly represent earthen vases. Among these may be particularised a lustral ewer resting in a stand supported by bulls' feet, which appears in front of a temple at Khorsabad,[2] and a wine vase (see overleaf) of ample dimensions, which



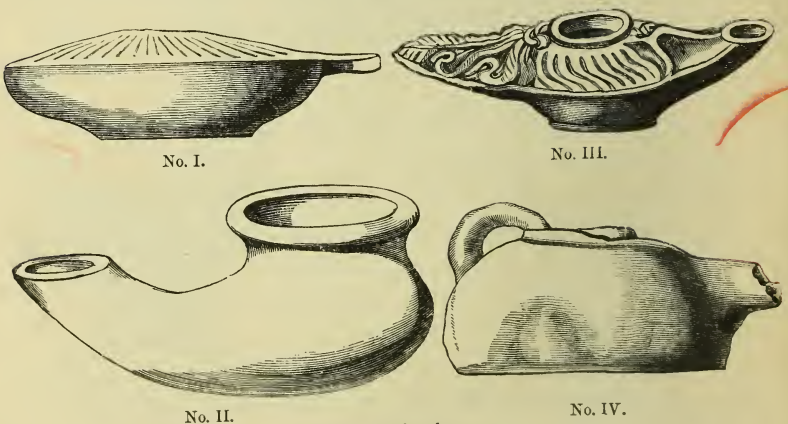
Lustral ewer, from a bas-relief, Khorsabad.

[1] *Nin. and Bab.* p. 574. [2] See Botta's *Monument de Ninive*, vol. ii. Plates 141 and 162.

is found in a banquet scene at the same place.[3] Some of the lamps are also graceful enough, and seem to be the prototypes out of which were developed the more elaborate productions of the Greeks. Others are more simple, being without ornament of any kind, and nearly resembling a modern teapot (see No. IV.). The glazed pottery is, for the most part, tastefully coloured. An amphora, with twisted arms, found at Nimrud (see opposite), is of two colours, a warm yellow, and a cold bluish green. The green predominates in the upper, the yellow in the under portion; but there is a certain amount of blending or mottling in the mid-region, which has a very pleasant effect. A similarly mottled character is presented by two other amphoræ from the same place, where the general hue is a yellow which



Wine vase, from a bas-relief, Khorsabad.

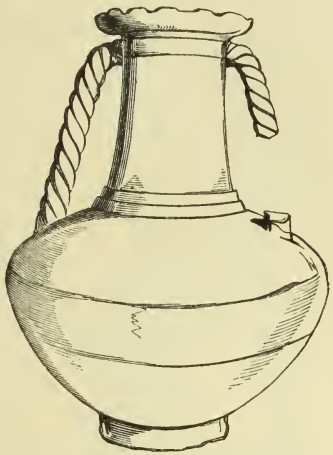


No. I. No. III. No. II. No. IV.

Assyrian clay-lamps.

[3] See Botta's *Monument de Ninive*, vol. ii. Plate 76; and see vol. v. p. 130.

varies in intensity, and the mottling is with a violet blue. In some cases the colours are not blended, but sharply defined by lines, as in a curious spouted cup figured by Mr. Layard, and in several fragmentary specimens.[4] Painted patterns are not uncommon upon the glazed pottery, though upon the unglazed they are scarcely ever found. The most usual colours are blue, yellow, and white; brown, purple, and lilac have been met with occasionally. These colours are thought to be derived chiefly from metallic oxides, over which was laid as a glazing a vitreous silicated substance.[5] On the whole porcelain of this fine kind is rare in the Assyrian remains, and must be regarded as a material that was precious and used by few.



Amphora, with twisted arms (Nimrud).

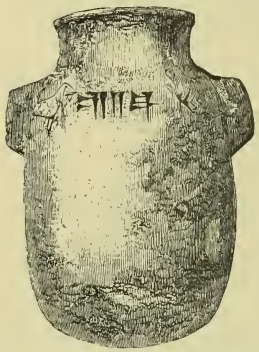
Assyrian glass is among the most beautiful of the objects which have been exhumed. M. Botta compared it to certain

Assyrian glass bottles and bowl (after Layard).

fabrics of Venice and Bohemia,[6] into which a number of different colours are artificially introduced. But a careful analysis has shown that the lovely prismatic hues which delight us in the Assyrian specimens, varying under different lights with all the

[4] See Layard's *Monuments*, 1st Series, Plate 85.
[5] Birch, *Ancient Pottery*, vol. i. p. 130. [6] *Monument de Ninive*, vol. v. p. 173.

delicacy and brilliancy of the opal, are due, not to art, but to the wonder-working hand of time, which, as it destroys the fabric, compassionately invests it with additional grace and beauty. Assyrian glass was either transparent, or stained with a single uniform colour.[7] It was composed in the usual way, by a mixture of sand or silex with alkalis, and, like the Egyptian,[8] appears to have been first rudely fashioned into shape by the blow-pipe. It was then more carefully shaped, and, where necessary, hollowed out by a turning machine, the marks of which are sometimes still visible.[9] The principal specimens which have been discovered are small bottles and bowls, the former not more than three or four inches high, the latter from four to five inches in diameter. The vessels are occasionally inscribed with the name of a king, as is the case in the famous vase of Sargon found by Mr. Layard at Nimrud which is here figured. This is the earliest known specimen of *transparent* glass, which is not found in Egypt until the time of the Psammetichi. The Assyrians used also opaque glass, which they coloured, sometimes red, with the suboxide of copper, sometimes white, sometimes of other hues. They seem not to have been able to form masses of glass of any considerable size; and thus the employment of the material must have been limited to a few ornamental, rather than useful, purposes. A curious specimen is that of a pipe or tube, honeycombed externally, which Mr. Layard exhumed at Koyunjik, and of which the cut on next page is a rough representation.



Glass vase, bearing the name of Sargon, from Nimrud (after Layard).

An object found at Nimrud, in close connection with several

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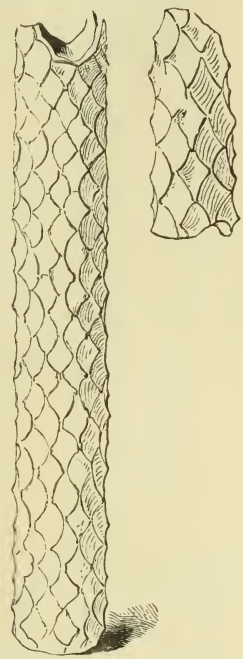
[7] An elaborate account of the process whereby the Assyrian glass has become partially decomposed, and of the effects produced by the decomposition, will be found in Mr. Layard's *Nineveh and Babylon*, Appendix, pp. 674–676, contributed to that work by Sir David Brewster.

[8] Wilkinson, *Ancient Egyptians*, 1st Series, vol. iii. pp. 88, 89.

[9] Layard, *Nineveh and Babylon*, p. 197.

glass vessels,[1] is of a character sufficiently similar to render its introduction in this place not inappropriate. This is a lens composed of rock crystal, about an inch and a half in diameter, and nearly an inch thick, having one plane and one convex surface, and somewhat rudely shaped and polished, which, however, gives a tolerably distinct focus at the distance of $4\frac{1}{2}$ inches from the plane side, and which may have been used either as a magnifying glass or to concentrate the rays of the sun. The form is slightly oval, the longest diameter being $1\frac{6}{10}$ inch, the shortest $1\frac{4}{10}$ inch. The thickness is not uniform, but greater on one side than on the other. The plane surface is ill-polished and scratched, the convex one, not polished on a concave spherical disc, but fashioned on a lapidary's wheel, or by some method equally rude.[2] As a burning glass the lens has no great power; but it magnifies fairly, and may have been of great use to those who inscribed, or to those who sought to decipher, the royal memoirs.[3] It is the only object of the kind that has been found among the remains of antiquity, though it cannot be doubted that lenses were known and were used as burning-glasses by the Greeks.[4]



Fragments of hollow tubes, in glass, from Koyunjik (after Layard).

Some examples have been already given illustrating the tasteful ornamentation of Assyrian furniture. It consisted, so far as we know, of tables, chairs, couches, high stools, footstools,

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[1] Layard, *Nineveh and Babylon*, p. 197.

[2] See the description furnished to Mr. Layard by Sir David Brewster. (*Nineveh and Babylon*, p. 197, note.)

[3] Vide supra, p. 263.

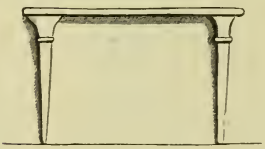
[4] This is evident from Aristophanes (*Nub.* 746–749), where Strepsiades proposes to obliterate his debts from the waxen tablets on which they are inscribed by means of "that transparent stone wherewith fires are lighted." (*τὴν λίθον τὴν διαφανῆ, ἀφ' ἧς τὸ πῦρ ἅπτουσι.*) Compare also Theophrast. *De Igne*, 73.

and stands with shelves to hold the articles needed for domestic purposes. As the objects themselves have in all cases ceased

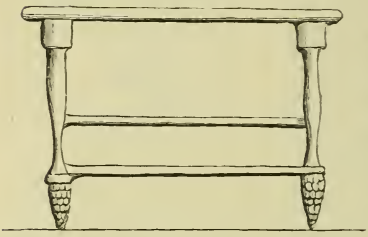
No. 1. No. 2. No. 3.

Ordinary Assyrian tables, from the bas-reliefs.

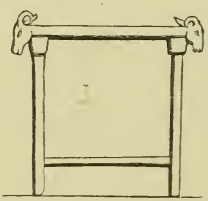
to exist, leaving behind them only a few fragments, it is necessary to have recourse to the bas-reliefs for such notices as may be thence derived of their construction and character. In these representations the most ordinary form of table is one in which the principle of our campstools seems to be adopted, the legs crossing each other as in the woodcuts above. Only two legs are represented, but we must undoubtedly regard these two as concealing two others of the same kind at the opposite end of the table. The legs ordinarily terminate in the feet of animals, sometimes of bulls, but more commonly of horses. Sometimes between the two legs we see a species of central pillar, which, however, is not traceable below the point where the legs cross one another. The pillar itself is either twisted or plain



No. I.

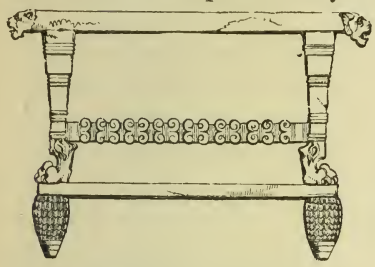


No. II. Assyrian tables, from bas-reliefs (Koyunjik).

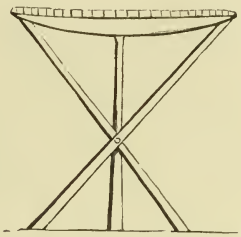


No. III. Table, ornamented with rams' heads (Koyunjik).

(see No. 3, on last page). Another form of table, less often met with, but simpler, closely resembles the common table of



No. IV. Ornamented table (Khorsabad).



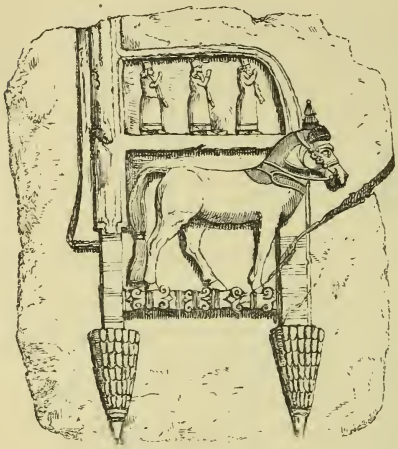
Three-legged table (Koyunjik).

the moderns. It has merely the necessary flat top, with perpendicular legs at the corners. The skill of the cabinet-makers enabled them to dispense in most instances with cross-bars (see No. I.), which are, however, sometimes seen (see No. II., No. III., and No. IV.), uniting the legs of this kind of tables. The corners are often ornamented with lions' or rams' heads, and the feet are frequently in imitation of some animal form (see No. III. and No. IV.). Occasionally we find a representation of a three-legged table, as the above specimen, which is from a relief at Koyunjik. The height of tables appears to have been greater than with ourselves; the lowest reach nearly to a man's middle; the highest are level with the upper part of the chest.

Sennacherib on his throne (Koyunjik).

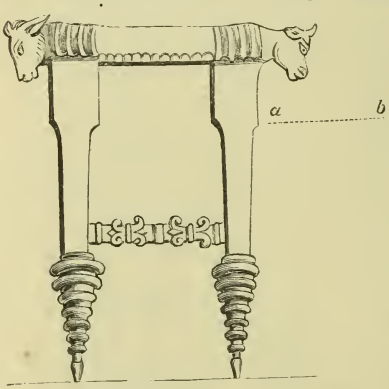
Assyrian thrones and chairs were very elaborate. The throne of Sennacherib exhibited on its sides and arms three rows of carved figures, one above another, supporting the bars with

their hands. The bars, the arms, and the back, were patterned. The legs ended in a pine-shaped ornament, very common in Assyrian furniture. Over the back was thrown an embroidered cloth, fringed at the end, which hung down nearly to the floor. A throne of Sargon's was adorned on its sides with three human figures, apparently representations of the king, below which was the war-horse of the monarch, caparisoned as for battle.[5] Another throne of the same monarch's had two large and four small figures of men at the side, while the back was supported on either side by a human figure of superior dimensions.[6]



Arm-chair or throne (Khorsabad).

The use of chairs with high backs, like these, was apparently confined to the monarchs. Persons of less exalted rank were content to sit on seats which were either stools, or chairs, with a low back level with the arms.[7]



Assyrian ornamented seat (Khorsabad).

Seats of this kind, whether thrones or chairs, were no doubt constructed mainly of wood. The ornamental work may, however, have been of bronze, either cast into the necessary shape, or wrought into it by the hammer. The animal heads at the

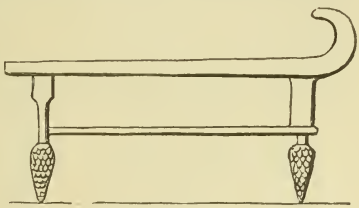
[5] Botta, *Monument de Ninive*, vol. i. Plate 17.

[6] Ibid. Plate 18.

[7] In the series from which this representation is taken the figures appear seated in such a way as would imply that the actual seat was level with the dotted line *a b*.

ends of arms seem to have fallen under the latter description.[8] In some cases, ivory was among the materials used: it has been found in the legs of a throne at Koyunjik,[9] and may not improbably have entered into the ornamentation of the best furniture very much more generally.

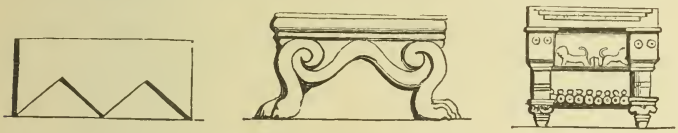
The couches which we find represented upon the sculptures are of a simple character. The body is flat, not curved; the legs are commonly plain, and fastened to each other by a cross-bar, sometimes terminating in the favourite pine-shaped ornament. One end only is raised, and this usually curves inward nearly in a semicircle.



Assyrian couch, from a bas-relief, Koyunjik.

The couches are decidedly lower than the Egyptian;[10] and do not, like them, require a stool or steps in order to ascend them.

Stools, however, are used with the chairs or thrones of which mention was made above—lofty seats, where such a support for the sitter's feet was imperatively required. They are sometimes



No. I. No. II. No. III.

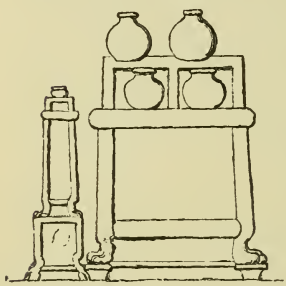
Assyrian footstools (Koyunjik).

plain at the sides, and merely cut *en chevron* at the base; sometimes highly ornamented, terminating in lions' feet supported on cones, in the same[1] (or in volutes) supported on balls, and otherwise adorned with volutes, lion castings, and the like. The most elaborate specimen is the stool (No. III.) which supports the feet of Asshur-bani-pal's queen on a relief brought from the North Palace at Koyunjik, and now in the National

[8] Layard, *Nineveh and Babylon*, p. 199.
[9] Ibid. p. 198.
[10] Wilkinson, *Ancient Egyptians*, 1st Series, vol. ii. p. 201.
[1] See the woodcut on p. 393.

Collection. Here the upper corners exhibit the favourite gradines, guarding and keeping in place an embroidered cushion; the legs are ornamented with rosettes and with horizontal mouldings; they are connected together by two bars, the lower one adorned with a number of double volutes, and the upper one with two lions standing back to back; the stool stands on balls, surmounted first by a double moulding, and then by volutes.

Stands with shelves often terminate, like other articles of furniture, in animals' feet, most commonly lions', as in the accompanying specimens.



Stands for jars.

Of the embroidered robes and draperies of the Assyrians, as of their furniture, we can judge only by the representations made of them upon the bas-reliefs. The delicate texture of such fabrics has prevented them from descending to our day even in the most tattered condition; and the ancient testimonies on the subject are for the most part too remote from the times of the Assyrians to be of much value.[2] Ezekiel's notice[3] is the only one which comes within such a period of Assyria's fall as to make it an important testimony, and even from this we cannot gather much that goes beyond the evidence of the sculptures. The sculptures show us that robes and draperies

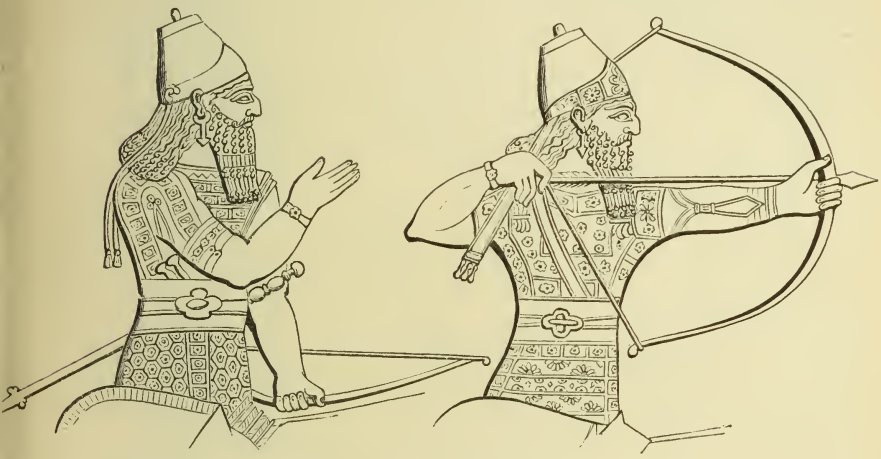
[2] The Greek and Roman ideas on the subject of the Assyrian dress were probably derived from Ctesias, at least mainly. He seems to have ascribed to Sardanapalus, and even to Semiramis, garments of great magnificence and of delicate fabric. (See Diod. Sic. ii. 6, § 6, 23, § 1, and 27, § 3.) But he did not, so far as we know, distinctly speak of these garments as embroidered. It remained for the later Roman poets to determine that the colour of the robes was purple, and that their ornamentation was the work of the needle.

"Perfusam *murice* vestem
Assyriâ signatur *acu*."
Claudian xliv. 86, 87.

These rare Assyrian garments were said to have been adopted by the Medes, and afterwards by the Persians. (Diod. Sic. ii. 6, § 6.) They were probably of silk, which was produced largely in Assyria (Plin. *H. N.* xi. 22), whence it was carried to Rome and worn both by men and women (ib. xi. 23).

[3] Ezek. xxvii. 23, 24: "Haran and Canneh and Eden, the merchants of Sheba, *Asshur*, and Chilmad, were thy merchants. These were thy merchants in all sorts of things, in blue clothes and broidered work (רִקְמָה), and in chests of rich apparel, bound with cords and made of cedar, among thy merchandise."

of all kinds were almost always more or less patterned; and this patterning, which is generally of an extremely elaborate kind, it is reasonable to conclude was the work of the needle. Sometimes the ornamentation is confined to certain portions of garments, as to the ends of sleeves and the bottoms of robes or tunics; at others it is extended over the whole dress. This is more particularly the case with the garments of the kings, which are of a magnificence difficult to describe, or to represent within a narrow compass. One or two specimens, however, may be given almost at random, indicating different styles of

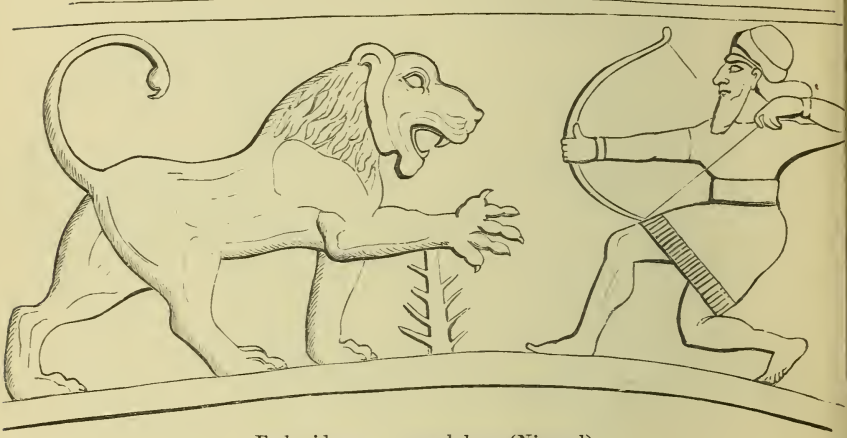


Royal embroidered dresses (Nimrud).

ornamentation usual in the royal apparel. Other examples will be seen in the many illustrations throughout this volume where the king is represented.[4] It is remarkable that the earliest representations exhibit the most elaborate types of all, after which a reaction seems to set in—simplicity is affected—which, however, is gradually trenched upon, until at last a magnificence is reached little short of that which prevailed in the age of the first monuments. The draperies of Asshur-izir-pal in the north-west palace at Nimrud, are at once

[4] As on pp. 290, 292, 393, &c. of this volume.

more minutely laboured and more tasteful than those of any later time. Besides elegant but unmeaning patterns, they exhibit human and animal forms, sacred trees, sphinxes, griffins, winged horses, and occasionally bull-hunts and lion-hunts. The upper part of this king's dress is in one instance almost covered with figures, which range themselves round a circular breast ornament, whereof the cut opposite is a representation. Elsewhere his apparel is less superb, and indeed it presents almost every degree of richness, from the wonderful embroidery of the robe just mentioned to absolute plainness, in



Embroidery on a royal dress (Nimrud).

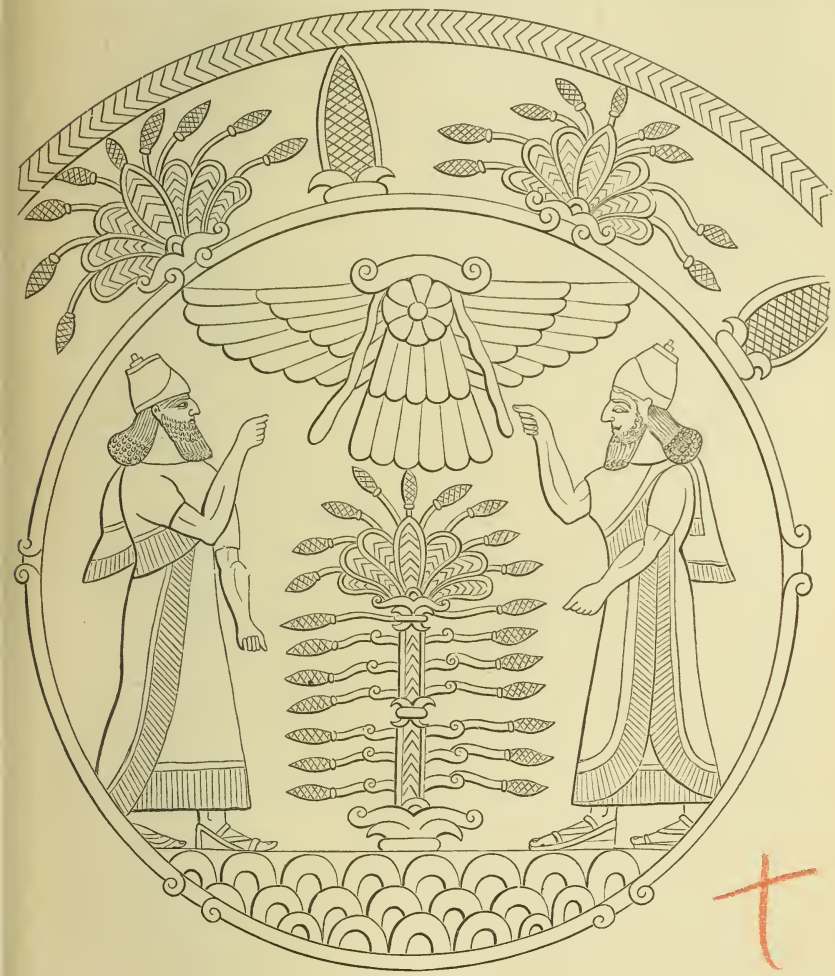
the celebrated picture of the lion-hunt.[5] With Sargon, the next king who has left many monuments, the case is remarkably different. Sargon is represented always in the same dress —a long fringed robe, embroidered simply with rosettes, which are spread somewhat scantily over its whole surface. Sennacherib's apparel is nearly of the same kind, or, if anything, richer, though sometimes the rosettes are omitted.[6] His grandson, Asshur-bani-pal, also affects the rosette ornament, but reverts alike to the taste and the elaboration of the early kings. He wears a breast ornament containing human figures,

[5] Supra, p. 344.

[6] See Layard, *Monuments*, 1st Series, Plate 77; 2nd Series, Plate 42. The omission *may* be from mere carelessness in the artist.

around which are ranged a number of minute and elaborate patterns.

To this account of the arts, mimetic and other, in which the Assyrians appear to have excelled, it might be expected that



Circular breast ornament on a royal robe (Nimrud).

there should be added a sketch of their scientific knowledge. On this subject, however, so little is at present known, while so much may possibly become known within a short time, that

it seems best to omit it, or to touch it only in the lightest and most cursory manner. When the numerous tablets now in the British Museum shall have been deciphered, studied, and translated, it will probably be found that they contain a tolerably full indication of what Assyrian science really was; and it will then be seen how far it was real and valuable, in what respects mistaken and illusory. At present this mine is almost unworked, nothing more having been ascertained than that the subjects whereof the tables treat are various, and their apparent value very different. Comparative philology seems to have been largely studied, and the works upon it exhibit great care and diligence. Chronology is evidently much valued, and very exact records are kept whereby the lapse of time can even now be accurately measured. Geography and history have each an important place in Assyrian learning; while astronomy and mythology occupy at least as great a share of attention. The astronomical observations recorded are thought to be frequently inaccurate, as might be expected when there were no instruments, or none of any great value. Mythology is a very favourite subject, and appears to be treated most fully; but hitherto cuneiform scholars have scarcely penetrated below the surface of the mythological tablets, baffled by the obscurity of the subject and the difficulty of the dialect in which they are written.[7]

On one point alone, belonging to the domain of science, do the Assyrian representations of their life enable us to comprehend, at least to some extent, their attainments. The degree of knowledge which this people possessed on the subject of practical mechanics is illustrated with tolerable fulness in the bas-reliefs, more especially in the important series discovered at Koyunjik, where the transport of the colossal bulls from the quarry to the palace gateways is represented in the most elaborate detail.[8] The very fact that they were able to

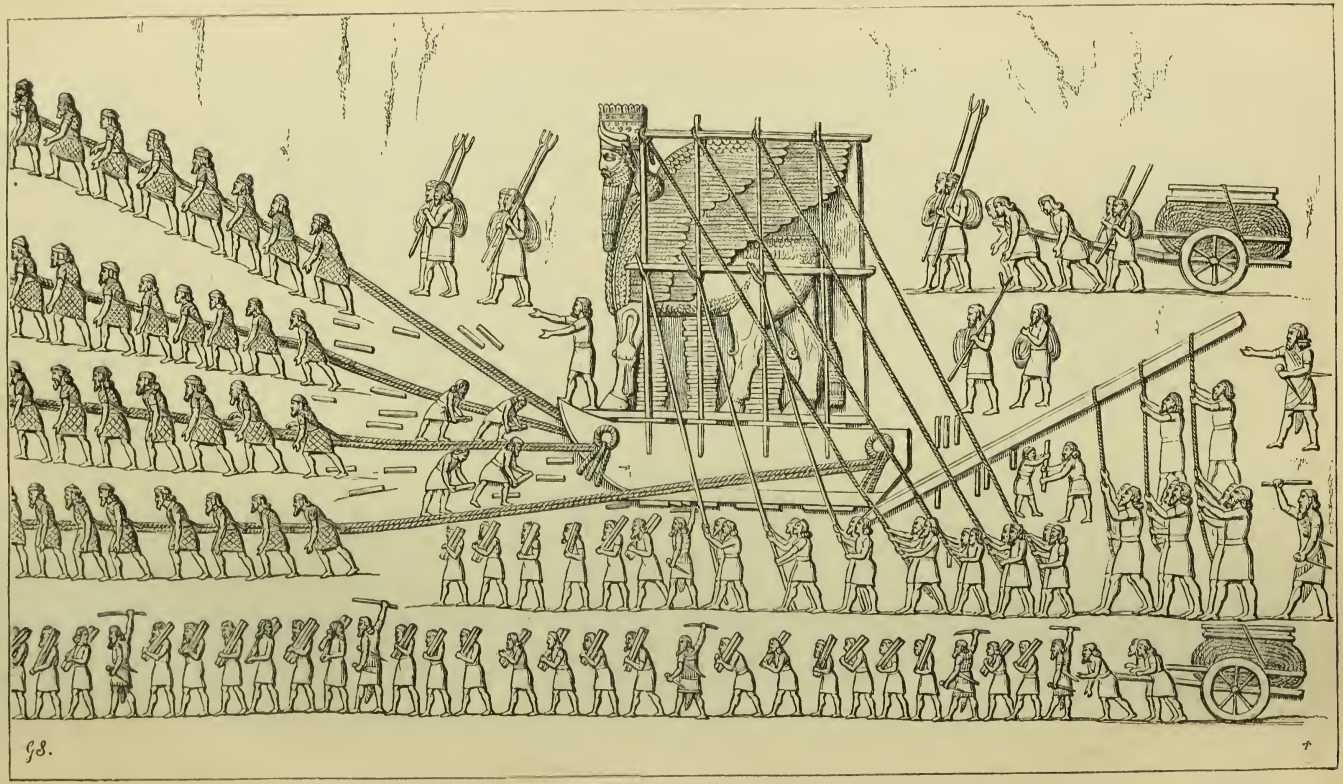
[7] The mythological tablets are always in the Akkad or old Chaldæan language, and in very few instances are furnished even with a gloss or explanation in Assyrian. (See Sir H. Rawlinson's Essay "On the Religion of the Babylonians and Assyrians" in the author's *Herodotus*, vol. i. p. 585, note [2].)

[8] This series is excellently represented in Mr. Layard's *Monuments*, 2nd Series, Plates 10 to 17.

transport masses of stone, many tons in weight, over a considerable space of ground, and to place them on the summit of artificial platforms from thirty to eighty (or ninety) feet high, would alone indicate considerable mechanical knowledge. The further fact, now made clear from the bas-reliefs, that they wrought all the elaborate carving of the colossi before they proceeded to raise them or put them in place,[9] is an additional argument of their skill, since it shows that they had no fear of any accident happening in the transport. It appears from the representations that they placed their colossus in a standing posture, not on a truck or waggon of any kind, but on a huge wooden sledge, shaped nearly like a boat, casing it with an openwork of spars or beams, which crossed each other at right angles, and were made perfectly tight by means of wedges.[1] To avert the great danger of the mass toppling over sideways, ropes were attached to the top of the casing, at the point where the beams crossed one another, and were held taut by two parties of labourers, one on either side of the statue. Besides these, wooden forks or props were applied on either side to the second set of horizontal cross-beams, held also by men, whose business it would be to resist the least inclination of the huge stone to lean to one side more than to the other. The front of the sledge on which the colossus stood was curved gently upwards, to facilitate its sliding along the ground, and to enable it to rise with readiness upon the rollers, which were continually placed before it by labourers just in front, while others following behind gathered them up when the bulky mass had passed over them. The motive power was applied in front by four gangs of men who held on to four large cables, at which they pulled by means of small ropes or straps fastened to them, and passed under one shoulder and over the other, an arrangement which enabled them to pull by weight

[9] Mr. Layard first imagined that the contrary was the case (*Nineveh and its Remains*, vol. ii. p. 318); but his Koyunjik discoveries convinced him of his error (*Nineveh and Babylon*, pp. 105, 106).

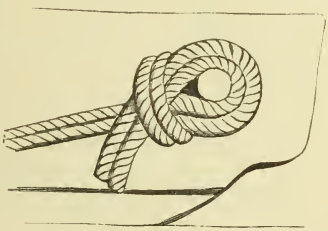
[1] The nineteenth century could make no improvement upon this. Mr. Layard tells us that "*precisely the same* framework was used for moving the great sculptures now in the British Museum." (*Nineveh and Babylon*, p. 112, note.)



Assyrians moving a human-headed bull, partly restored from a bas-relief at Koyunjik (after Layard).

as much as by muscular strength, as the annexed figure will plainly show. The cables appear to have been of great strength, and are fastened carefully to four strong projecting pins: two near the front, two at the back part of the sledge, by a knot so tied that it would be sure not to slip. Finally, as in spite of the rollers, whose use in diminishing friction, and so facilitating progress, was evidently well understood, and in spite of the amount of force applied in front, it would have been difficult to give the first impetus to so great a mass, a lever was skilfully applied behind to raise the hind part of the sledge slightly, and so propel it forward, while to secure a sound and firm fulcrum, wedges of wood were inserted between the lever and the ground. The greater power of a lever at a distance from the fulcrum being known, ropes were attached to its upper end, which could not otherwise have been reached, and the lever was worked by means of them.

Labourer employed in drawing a colossal bull (Koyunjik).

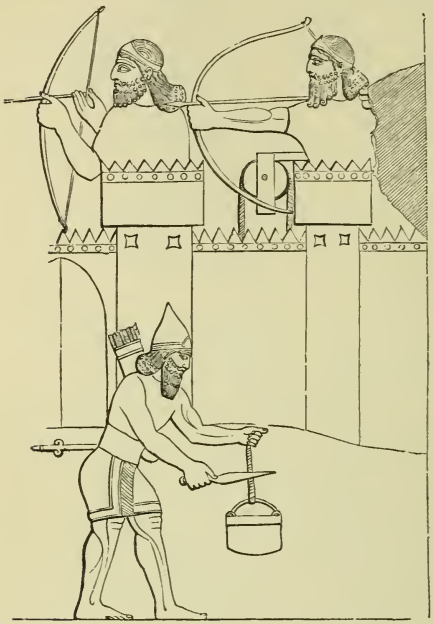


Attachment of rope to sledge, on which the bull was placed for transport (Koyunjik).

We have thus unimpeachable evidence as to the mode whereby the conveyance of huge blocks of stone along level ground was effected. But it may be further asked, how were the blocks raised up to the elevation at which we find them placed? Upon this point there is no direct evidence; but the probability is that they were drawn up inclined ways, sloping gently from the natural ground to the top of the platforms. The Assyrians were familiar with inclined ways,[2] which they used almost always in their attacks on walled places, and which

[2] The "banks" of Scripture (2 Kings xix. 32; Is. xxvii. 33).

in many cases they constructed either of brick or stone.[3] The Egyptians certainly employed them for the elevation of large blocks;[4] and probably in the earlier times most nations who affected massive architecture had recourse to the same simple but uneconomical plan.[5] The crane and pulley were applied to this purpose later. In the Assyrian sculptures we find no application of either to building, and no instance at all of the two in combination. Still each appears on the bas-reliefs separately—the crane employed for drawing water from the rivers and spreading it over the lands,[6] the pulley for lowering and raising the bucket in wells.



Part of a bas-relief, showing a pulley and a warrior cutting a bucket from the rope (after Layard).

We must conclude from these facts that the Assyrians had made considerable advances in mechanical knowledge, and were, in fact, acquainted, more or less, with most of the contrivances whereby heavy weights have commonly been moved and raised among the civilized nations of Europe. We have also evidence of their skill in the mechanical processes of shaping pottery

[3] See Mr. Layard's *Monuments*, 2nd Series, Plates 18 and 21.

[4] The great stones of which the pyramids were built were certainly raised from the alluvial plain to the rocky platform on which they stand in this way. (Herod. ii. 124; compare Wilkinson in the author's *Herodotus*, vol. ii. p. 200, note [6].) Diodorus declares that the pyramids themselves were built by the help of mounds (i. 62, § 6). This, however, is improbable.

[5] It is the most reasonable supposition that the cross-stones at Stonehenge, and the *cromlech* stones so common in Ireland, were placed in the positions where we now find them by means of inclined planes afterwards cleared away.

[6] See the representation, p. 215.

and glass, of casting and embossing metals, and of cutting intaglios upon hard stones.[7] Thus it was not merely in the ruder and coarser, but likewise in the more delicate processes, that they excelled. The secrets of metallurgy, of dyeing, enamelling, inlaying, glass-blowing, as well as most of the ordinary manufacturing processes, were known to them. In all the common arts and appliances of life, they must be pronounced at least on a par with the Egyptians, while in taste they greatly exceeded, not that nation only, but all the Orientals. Their "high art" is no doubt much inferior to that of Greece; but it has real merit, and is most remarkable, considering the time when it was produced. It has grandeur, dignity, boldness, strength, and sometimes even freedom and delicacy; it is honest and painstaking, unsparing of labour, and always anxious for truth. Above all, it is not lifeless and stationary, like the art of the Egyptians and the Chinese, but progressive and aiming at improvement.[8] To judge by the advance over previous works which we observe in the sculptures of the son of Esarhaddon, it would seem that if Assyria had not been assailed by barbaric enemies about his time, she might have anticipated by above a century the finished excellence of the Greeks.

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[7] It must be remembered that the Assyrians cut not merely the softer materials, as serpentine and alabaster, but the gems known technically as "hard stones"—agate, jasper, quartz, sienite, amazon stone, and the like. (See King's *Ancient Gems*, p. 127.)

[8] See the summary on this subject in the author's *Herodotus*, vol. i.; Essay vii. § 42.

CHAPTER VII.

MANNERS AND CUSTOMS.

"Whose arrows are sharp, and all their bows bent; their horses' hoofs shall be counted like flint, and their wheels like a whirlwind."—ISAIAH v. 28.

IN reviewing, so far as our materials permit, the manners and customs of the Assyrians, it will be convenient to consider separately their warlike and their peaceful usages. The sculptures furnish very full illustration of the former, while on the latter they throw light far more sparingly.

The Assyrians fought in chariots, on horseback, and on foot. Like most ancient nations, as the Egyptians,[1] the Greeks in the heroic times,[2] the Canaanites,[3] the Syrians,[4] the Jews and Israelites,[5] the Persians,[6] the Gauls,[7] the Britons,[8] and many others,[9] the Assyrians preferred the chariot as most honourable, and probably as most safe. The king invariably went out to war in a chariot, and always fought from it, excepting at the siege of a town, when he occasionally dismounted and shot his arrows on foot. The chief state-officers and other personages of high rank followed the same practice. Inferior persons served either as cavalry, or as foot-soldiers.

The Assyrian war-chariot is thought to have been made of wood.[10] Like the Greek and the Egyptian, it appears to have been mounted from behind, where it was completely open, or

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[1] Gen. xli. 43; Ex. xiv. 7-28; 2 K. xviii. 24; Jer. xlvi. 9; &c. Compare Wilkinson, *Ancient Egyptians*, 1st Series, vol. i. pp. 335 *et seqq.*

[2] Hom. *Il.* iii. 29; iv. 366, &c. Hes. *Scut. Herc.* 306-309; Æsch. *Sept. c. Th.* 138, 191, &c.

[3] Josh. xvii. 18; Judg. i. 19 and iv. 3.

[4] 2 Sam. x. 18; 2 K. vi. 14, 15.

[5] 1 Sam. viii. 11, 12; 1 K. iv. 26; x. 26; xvi. 9; xxii. 34, &c.

[6] Herod. vii. 40; Æsch. *Pers.* 86; Xen. *Anab.* i. 8, § 10; Arr. *Exp. Alex.* ii. 11; iii. 11.

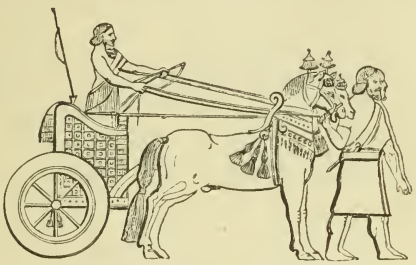
[7] Cæs. *De Bell. Gall.* iv. 33.

[8] Tacit. *Agric.* § 12, and § 35.

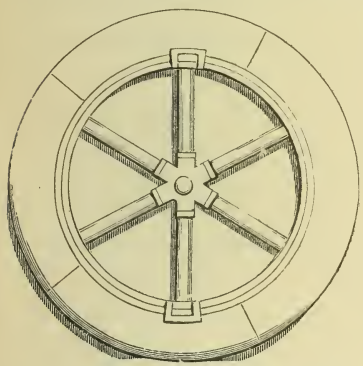
[9] As the Philistines (1 Sam. xiii. 5), the Hittites (1 K. x. 29; 2 K. vii. 6), the Susianians or Elamites (Is. xxii. 6), the Lydians (Æsch. *Pers.* 45-48), the wild African tribes near Cyrene (Herod. iv. 189; vii. 86), and the Indians of the Punjab region (ibid.; and Arrian, *Exp. Alex.* v. 15).

[10] Layard, *Nineveh and its Remains*, vol. ii. p. 349.

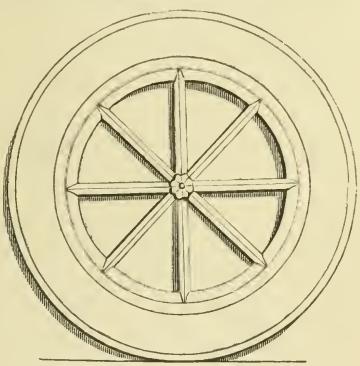
closed only by means of a shield, which (as it seems) could be hung across the aperture. It was completely panelled at the sides, and often highly ornamented, as will be seen from the various illustrations given in this chapter. The wheels were two in number, and were placed far back, at or very near the extreme end of the body, so that the weight pressed considerably upon the pole, as was the case also in Egypt.[11] They had remarkably broad felloes, thin and delicate spokes, and small or moderate-sized axles. The number of the spokes was either six or eight. The felloes appear to have been formed of three distinct circles of wood, the middle one being the thinnest, and the outer one



Assyrian war-chariot (Koyunjik).



No. I. Chariot-wheel of the early period.



No. II. Chariot-wheel of the middle period.

far the thickest of the three. Sometimes these circles were fastened together externally by bands of metal, hatchet-shaped. In one or two instances we find the outermost circle divided by cross-bars, as if it had been composed of four different pieces.

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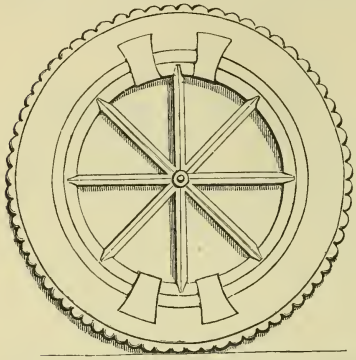
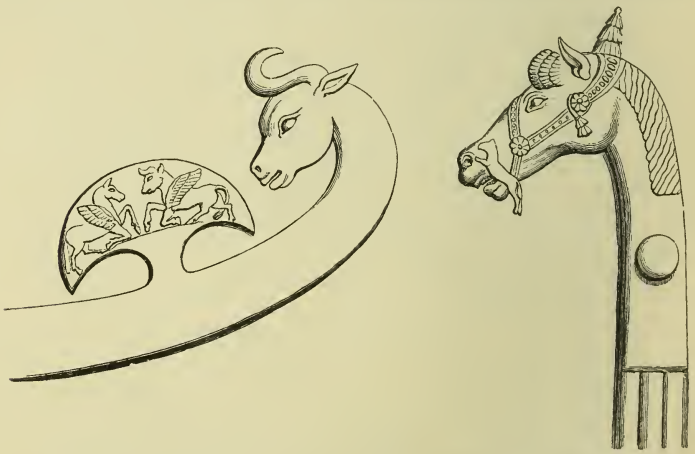
[11] Wilkinson, *Ancient Egyptians*, 1st Series, vol. i. p. 343. In the Greek and Roman chariots, on the contrary, the axle-tree was placed about midway in the body.

Occasionally there is a fourth circle, which seems to represent a metal tire outside the felloe, whereby it was guarded from injury. This tire is either plain or ornamented.



No. III. Chariot-wheel of the latest period.

The wheels were attached to an axle-tree, about which they revolved, in the usual manner. The body was placed directly upon the axle-tree and upon the pole, without the intervention of any springs. The pole started from the middle of the axle-tree, and, passing below the floor of the body in a horizontal direction, thence commonly curved upwards till it had risen to about half the height of the body, when it was again horizontal for a while, once more curving upwards at the end. It usually terminated in an ornament, which was sometimes the head of an



Ornamented ends of chariot-poles (Nimrud and Koyunjik).

animal—a bull, a horse, or a duck—sometimes a more elaborate and complicated work of art. Now and then the pole continued level with the bottom of the body till it had reached its full

projection, and then rose suddenly to the height of the top of the chariot. It was often strengthened by one or more thin bars, probably of metal, which united it to the upper part of the chariot-front.[12]

Chariots were drawn either by two or three, never by four, horses. They seem to have had but a single pole.[1] Where three horses were used, one must therefore have been attached merely by a rope or thong, like the side horses of the Greeks,[2] and can scarcely have been of much service for drawing the vehicle. He seems rightly regarded as a supernumerary, intended to take the place of one of the others, should either be disabled by a wound or accident.[3] It is not easy to determine from the sculptures how the two draught horses were attached to the pole. Where chariots are represented without horses, we find indeed that they have always a cross-bar or yoke;[4] but where horses are represented in the act of drawing a chariot, the cross-bar commonly disappears altogether. It would seem that the Assyrian artists, despairing of their ability to represent the yoke properly when it was presented to the eye endwise, preferred, for the most part, suppressing it wholly to rendering it in an unsatisfactory manner. Probably a yoke did really in every case pass over the shoulders of the two draught horses, and was fastened by straps to the collar which is always seen round their necks.

These yokes, or cross-bars, were of various kinds. Sometimes

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[12] See the representations of entire chariots given below, pp. 411, 412, and 413.

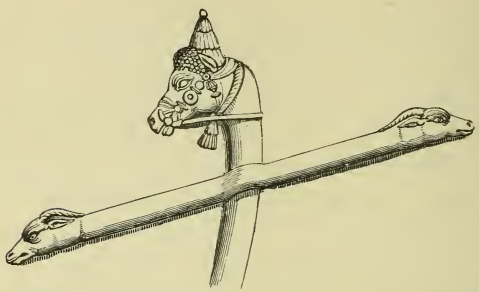
[1] This was the case also with the Greek chariots. The chariots of the Lydians, according to Æschylus (*Pers.* 45-47), had two and even three poles (δίῤῥυμά τε καὶ τρίῤῥυμα τέλη). In the Assyrian sculptures there is one representation of what seems to be a chariot with two poles (Layard, *Monuments of Nineveh*, 2nd Series, Pl. 24); but perhaps the intention was to represent *two* chariots, one partially concealing the other.

[2] Σειραῖοι, or σειραφόροι, "rope-bearers," from σειρά, "a cord or rope." (See Soph. *Electr.* 722; Eurip. *Iph. A.* 223; *Herc. F.* 446; Schol. ad Aristoph. *Nub.* 1302; Isid. *Orig.* xviii. 35, &c.: and compare the article on Currus, in Smith's *Dictionary of Greek and Roman Antiquities*, p. 379, 2nd edition.)

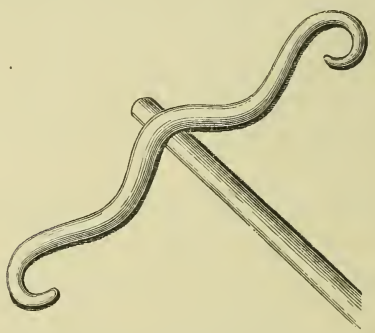
[3] Layard, *Nineveh and its Remains*, vol. ii. p. 350.

[4] Generally the yoke is exhibited with great clearness, being drawn in full, at right angles to the pole, or nearly so, despite the laws of perspective. Sometimes, however, as in Sennacherib's chariot (figured below, p. 413, No. II.), we find in the place where we should expect the yoke a mere circle marked out upon the pole, which represents probably one end of the yoke, or possibly the hole through which it passed.

they appear to have consisted of a mere slight circular bar, probably of metal, which passed through the pole,[5] sometimes of a thicker spar, through which the pole itself passed. In this latter case the extremities were occasionally adorned with heads of animals. The most common kind of yoke exhibits a double curve, so as to resemble a species of bow unstrung. Now and then a specimen is found very curiously complicated, being formed of a bar curved strongly at either end, and exhibiting along its course four other distinct curvatures having opposite to them apertures resembling eyes, with an upper and a lower eyelid. It has been suggested that this yoke belonged to a four-horse chariot, and that to each of the four eyes (*a a a a*) there was a steed attached;[6] but, as no representation of a four-horse chariot has been found, this suggestion must be regarded as inadmissible. The probability seems to be that this yoke, like the others, was for two horses, on whose necks it rested at the points marked *b b*, the apertures (*c c c c*) lying thus on either side of the animals' necks, and furnishing the means whereby the yoke was fastened to the



End of pole, with cross-bar, after Botta (Khorsabad).

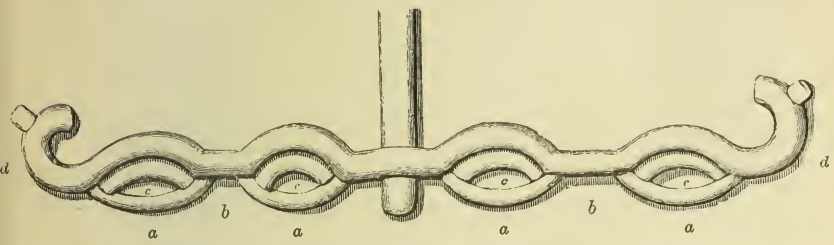


End of pole, with curved yoke (Koyunjik).

[5] See the pole ending in a horse's head on p. 408, and compare that to which reference is made in the last note.

[6] Botta, *Monument de Ninive*, vol. v. p. 90.

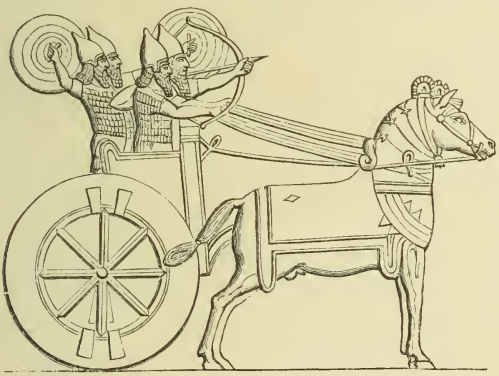
collar. It is just possible that we have in the sculptures of the later period a representation of the extremities (*d d*) of this



End of pole, with elaborate cross-bar or yoke (Khorsabad).

kind of yoke, since in them a curious curve appears sometimes on the necks of chariot-horses, just above the upper end of the collar.[7]

Assyrian chariots are exceedingly short; but, apparently, they must have been of a considerable width. They contain two persons at the least; and this number is often increased to three, and sometimes even to four. The warrior who fights from



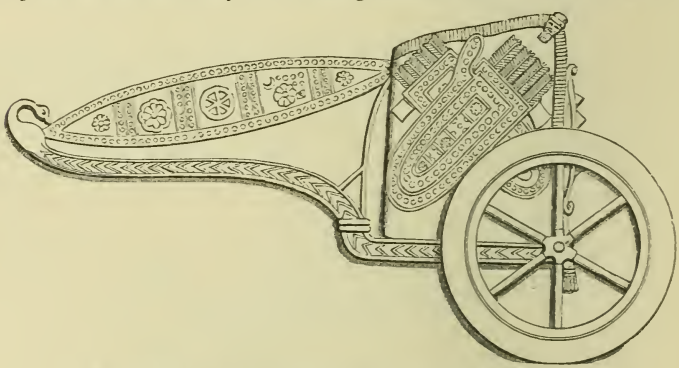
Assyrian chariot containing four warriors (Koyunjik).

a chariot is necessarily attended by his charioteer; and, where he is a king, or a personage of high importance, he is accompanied by a second attendant, who in battle-scenes always bears a shield, with which he guards the person of his master. Some-

[7] See below, and compare the representation of Sargon's chariot, p. 294.

times, though rarely, four persons are seen in a chariot—the king or chief, the charioteer, and two guards, who protect the monarch on either side with circular shields or targes.[8] The charioteer is always stationed by the side of the warrior, not (as frequently with the Greeks[9]) behind him. The guards stand behind, and, owing to the shortness of the chariot, must have experienced some difficulty in keeping their places. They are evidently forced to lean backwards from want of room, and would probably have often fallen out, had they not grasped with one hand a rope or strap firmly fixed to the front of the vehicle.[10]

There are two principal types of chariots in the Assyrian sculptures, which may be distinguished as the earlier and the



No. I. Assyrian war-chariot of the early period (Nimrud).

later.[11] The earlier are comparatively low and short. The wheels are six-spoked, and of small diameter. The body is plain, or only ornamented by a border, and is rounded in front, like the Egyptian[1] and the classical chariots.[2] Two quivers are

[8] Botta, *Monument de Ninive*, vol. ii. Pl. 92.

[9] *Dictionary of Antiquities*, vol. i. pp. 101, 379, &c.

[10] See Mr. Layard's *Monuments*, 1st Series, Pl. 22.

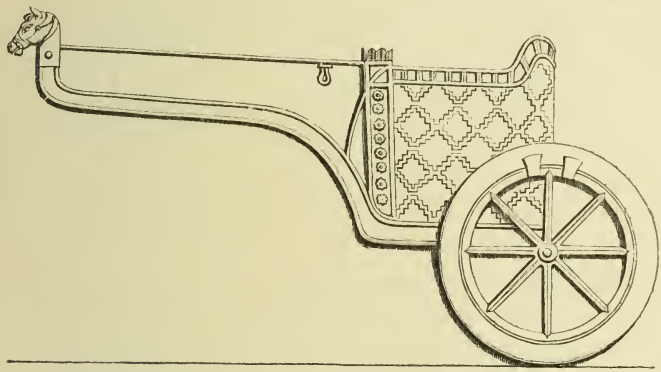
[11] The earlier belong to the time of Asshur-izir-pal ab. B.C. 900; the later to the times of Sargon, Sennacherib, and Asshur-bani-pal (Esarhaddon's son), about B.C. 720-660. Sometimes, but very rarely, a chariot of the old type is met with in the second period. (See Layard, *Monuments of Nineveh*, 2nd Series, Pl. 24.)

[1] Wilkinson, *Ancient Egyptians*, 1st Series, vol. i. p. 345.

[2] Smith's *Dictionary of Antiquities*, pp. 378, 379, 2nd ed.

suspended diagonally at the side of the body,[3] while a rest for a spear, commonly fashioned into the shape of a human head, occupies the upper corner at the back. From the front of the body to the further end of the pole, which is generally patterned and terminates in the head and neck of a bull or a duck, extends an ornamented structure, thought to have been of linen or silk stitched upon a framework of wood,[4] which is very conspicuous in the representations. A shield commonly hangs behind these chariots, perhaps closing the entrance; and a standard is sometimes fixed in them towards the front, connected with the end of the pole by a rope or bar.[5]

The later chariots are loftier and altogether larger than the



No. II. Assyrian war-chariot of the later period (Koyunjik).

earlier. The wheel is eight-spoked, and reaches as high as the shoulders of the horses, which implies a diameter of about five feet. The body rises a foot, or rather more, above this; and the riders thus from their elevated position command the whole battle-field. The body is not rounded, but made square in

[3] See the Woodcut No. I., and compare p. 344. Each quiver held also a small axe or hatchet. The arrangement of the quivers resembles that usual in Egypt (Wilkinson, vol. i. p. 346).

[4] Layard, *Nineveh and its Remains*, vol. ii. p. 350. Another conjecture is that the ornament in question is really a flap of leather, which extended *horizontally* from the horses' shoulders to the chariot-rim, and served the purpose of the modern splash-board. The artists, unskilled in perspective, would be obliged to substitute the perpendicular for the horizontal position.

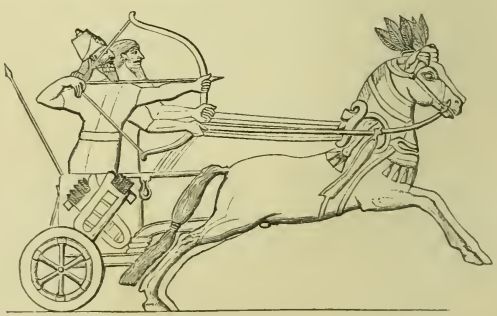
[5] See Layard, *Monuments*, 1st Series, Pls. 14, 22, and 27.

front; it has no quivers attached to it externally, but has, instead, a projection at one, or both, of the corners, which seems to have served as an arrow-case.[6] This projection is commonly patterned, as is in many cases the entire body of the chariot, though sometimes the ornamentation is confined to an elegant but somewhat scanty border. The poles are plain, not patterned, sometimes, however, terminating in the head of a horse; there is no ornamental framework connecting them with the chariot but in its stead we see a thin bar, attached to which, either above or below, there is in most instances a loop, whereto we may suppose that the reins were occasionally fastened.[7] No shield is suspended behind these chariots; but we sometimes observe an embroidered drapery hanging over the back, in a way which would seem to imply that they were closed behind, at any rate by a cross-bar.

The trappings of the chariot-horses belonging to the two periods are not very different. They consist principally of a headstall, a collar, a breast-ornament, and a sort of huge tassel pendant at the horse's side. The headstall was formed com-

[6] Layard, *Nineveh and its Remains*, vol. ii. p. 352. The feathers of the arrows are sometimes distinctly visible. (See the woodcut on preceding page.)

[7] If the white obelisk from Koyunjik now in the British Museum is rightly ascribed to Asshur-izir-pal, the father of the Black-Obelisk king, it would appear that the change from the older to the later chariot began in his time. The vehicles on that monument are of a *transition* character. They have the thin bar with the loop, and have in most instances wheels with eight spokes; but their proportions are like those of the early chariots, and they have the two transverse quivers.



Assyrian chariot of the transition period (Koyunjik).

monly of three straps: one was attached to the bit at either end, and passed behind the ears over the neck; another, which was joined to this above, encircled the smallest part of the neck; while a third, crossing the first at right angles, was carried round the forehead and the cheek-bones.[8] At the point where the first and second joined, or a little in front of this, rose frequently a waving plume, or a crest composed of three huge tassels, one above another; while at the intersection of the second and third was placed a rosette[9] or other suitable ornament. The first strap was divided where it approached the bit into two or three smaller straps, which were attached to the bit in different places. A fourth strap sometimes passed across the nose from the point where the first strap subdivided. All the straps were frequently patterned; the bit was sometimes shaped into an animal form;[10] and streamers occasionally floated from the nodding plume or crest which crowned the heads of the war-steeds.

The collar is ordinarily represented as a mere broad band passing round the neck, not at the withers (as with ourselves), but considerably higher up, almost midway between the withers and the cheek-bone. Sometimes it is of uniform width,[11] while often it narrows greatly as it approaches the back of the neck. It is generally patterned, and appears to have been a mere flat leathern band. It is impossible to say in what exact way the pole was attached to it, though in the later sculptures we have elaborate representations of the fastening. The earlier sculptures seem to append to the collar one or more patterned straps, which, passing round the horse's belly immediately behind the fore legs, served to keep it in place, while at the same time they were probably regarded as ornamental; but under the later kings these belly-bands were either reduced to a single strap, or else dispensed with altogether.

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[8] See the woodcuts on pp. 407 and 416.

[9] Rosettes in ivory, mother of pearl, and bronze, which may have belonged to the harness of horses, were found in great abundance by Mr. Layard at Nimrud (*Nineveh and Babylon*, p. 177).

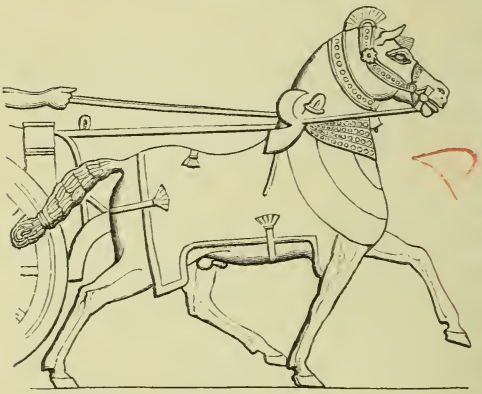
[10] See the representation which forms the ornamented head of a chariot-pole, supra, p. 408.

[11] This is especially the case in the sculptures of the early period.

The breast-ornament consists commonly of a fringe, more or less complicated. The simplest form, which is that of the most ancient times, exhibits a patterned strap with a single row of long tassels pendant from it, as in the annexed representation. At a later date we find a double, and even a triple row of tassels.[1]

Assyrian chariot of the early period (Nimrud).

The pendant side-ornament is a very conspicuous portion of the trappings. It is attached to the collar either by a long straight strap, or by a circular band which falls on either side of the neck. The upper extremity is often shaped into the form of an animal's head, below which comes most commonly a circle or disk, ornamented with a rosette, a Maltese cross, a winged bull, or other sacred emblem, while below the circle hang huge tassels in a single row or smaller ones arranged in several rows. In the sculptures of Sargon at Khorsabad, the tassels of both the breast and side ornaments were coloured, the tints being in most cases alternately red and blue.[2]



Chariot-horse protected by clothing (Koyunjik).

Occasionally the chariot-horses were covered from the ears almost to the tail with rich cloths, magnificently embroidered

[1] Supra, p. 294. In one case the rows of tassels amount to *seven* (Layard, *Monuments*, 2nd Series, Pl. 42).

[2] See p. 363.

over their whole surface.[3] These cloths encircled the neck, which they closely fitted, and, falling on either side of the body, were then kept in place by means of a broad strap round the rump and a girth under the belly.[4]

A simpler style of clothing chariot-horses is found towards the close of the later period, where we observe, below the collar,

Head of a chariot-horse, showing collar with bells attached (Koyunjik).

a sort of triple breast-plate, and over the rest of the body a plain cloth, square cut, with flaps descending at the arms and quarters, which is secured in its place by three narrow straps fastened on externally.[5] The earlier kind of clothing has the

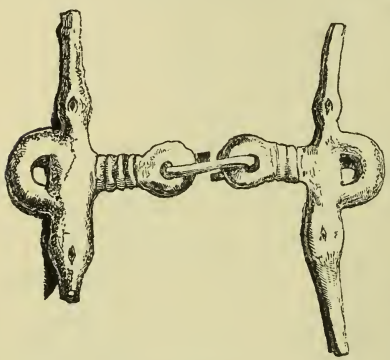
[3] See Mr. Layard's *Monuments*, 1st Series, Pl. 28; or his *Nineveh and its Remains*, vol. ii. opp. p. 350.

[4] Mr. Layard speaks of three straps, one of which "passed round the breast" (*Nineveh and its Remains*, vol. ii. p. 355); but the breast-strap, to which he alludes, has no connexion with the clothes, and occurs equally on unclothed horses of the early period. (See the representation on p. 416.)

[5] The third strap here is on the back, just above the quarters. It is difficult to see how it could have been of any service.

appearance of being for ornament; but this looks as if it was meant solely for protection.

Besides the trappings already noticed, the Assyrian chariot-horses had frequently strings of beads suspended round their necks, between the ears and the collar; they had also, not unfrequently, tassels or bells attached to different parts of the headstall; and finally they had, in the later period, most commonly, a curious ornament upon the forehead, which covered almost the whole space between the ears and the eyes, and was composed of a number of minute bosses, coloured, like the tassels of the breast ornament,[6] alternately red and blue.



Bronze bit (Nimrud).

Each horse appears to have been driven by two reins[7]—one attached to either end of the bit in the ordinary manner, and each passed through a ring or loop in the harness, whereby the rein was kept down and a stronger purchase secured to the driver. The shape of the bit within the mouth, if we may

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[6] Supra, p. 416. For representations of the ornament in question, see supra, p. 294, and infra, p. 425.

[7] Yet sometimes, where there are three horses, we find eight reins (Layard, *Monuments*, 1st Series, Pls. 13 and 14); and often, where there are but two horses, we see six reins. (See above, p. 294; and compare Layard, *Monuments*, 1st Series, Plates 72 and 80; 2nd Series, Plates 23, 24, 29, 42, &c.) I have sometimes doubted whether the Assyrians of the later period did not really drive three horses, while the artists economised their labour by only representing two. It is to be noticed that over the *two* heads there are very often represented *three* plumes (Botta, *Monument*, Pls. 53, 58, 65, &c.; Layard, *Monuments*, 1st Series, Pl. 72), and that the practice of economy by the artists is indubitable. For instance, they often show but one, and rarely more than two, of the six reins between the necks and mouths of the chariot-horses, where all six would have been visible; and they sometimes even suppress the *second* horse in a chariot (supra, p. 416; Layard, *Monuments*, 2nd Series, Pls. 29, 42, and 47). It is, however, on the whole, perhaps most probable that the *three* plumes and the *six* reins are traditional, and held their place in drawings when they had gone out of use in reality. Otherwise we should probably have had some distinct evidence of the continued use of the third horse.

Note that when Sennacherib's horses are being taken from his chariot to cross a river (*Monuments*, 2nd Series, Pl. 41), they are clearly but two in number, and employ but two grooms.

judge by the single instance of an actual bit which remains to us, bore a near resemblance to the modern snaffle. Externally

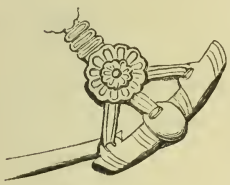


Fig. 1.

Fig. 2.

Bits of chariot-horses (Nimrud).

the bit was large, and in most cases clumsy—a sort of cross-bar extending across the whole side of the horse's face, commonly resembling a double axe-head, or a hammer. Occasionally the shape was varied, the hatchet or hammer being replaced by forms similar to those annexed, or by the figure of a horse at full gallop.[8] The rein seems, in the early times, to have been attached about midway in the cross-bar,[9] while afterwards it became usual to attach it near the lower end.[10] This latter arrangement was probably found to increase the power of the driver.

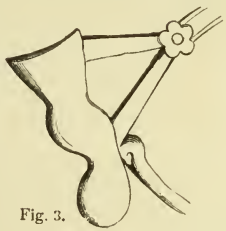


Fig. 3.

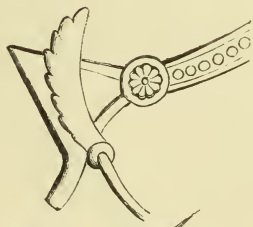


Fig. 4.

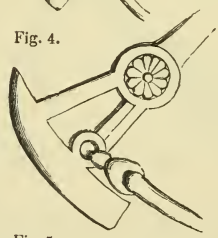


Fig. 5.

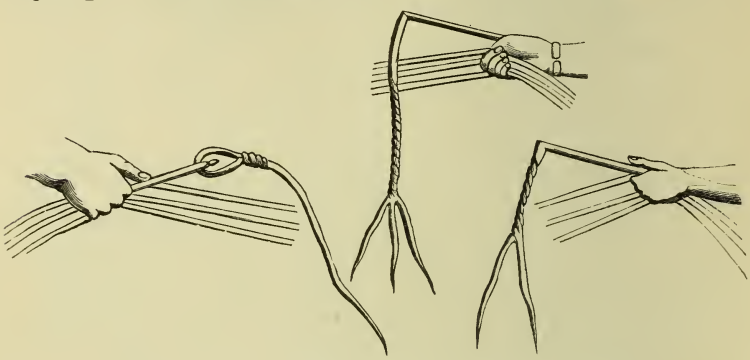
Bits of chariot-horses, from the Sculptures.

The use of the bearing-rein, which prevailed in Egypt,[11] was unknown to the Assyrians, or disapproved by them. The driving-reins were separate, not stitched or buckled together, and were held in the two hands separately. The right hand grasped the reins, whatever their number, which were attached at the horses' right cheeks, while the left hand performed the same office with the

[8] Supra, p. 408. [9] As in figs. 2, 3, and 5, above. [10] As in figs. 1 and 4, above.
[11] Wilkinson, vol. i. p. 351.

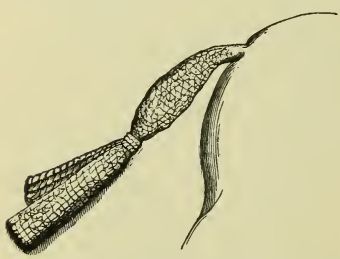
remaining reins. The charioteer urged his horses onward with a powerful whip, having a short handle, and a thick plaited or twisted lash, attached like the lash of a modern horsewhip, sometimes with, sometimes without, a loop, and often subdivided at the end into two or three tails.

Chariot-horses were trained to three paces, a walk, a trot, and a gallop. In battle-pieces they are commonly represented at



Driving-whips of Assyrian charioteers, from the Sculptures.

full speed, in marches trotting, in processions walking in a stately manner. Their manes were frequently hogged,[12] though more commonly they lay on the neck, falling (apparently) upon either side indifferently. Occasionally a portion only was hogged, while the greater part remained in its natural condition.[1] The tail was uncut, and generally almost swept the ground, but was confined by a string or riband tied tightly around it about midway. Sometimes, more especially in the later sculptures, the lower half of the tail is plaited and tied up into a loop or bunch,[2] according to the fashion which prevails in the present day through most parts of Turkey and Persia.



Mode of tying horses' tails (Koyunjik).

[12] See Layard's *Monuments*, 1st Series, Pls. 14, 23, &c.

[1] Layard, Pl. 72.

[2] See the woodcuts, pp. 411 and 416.

The warrior who fought from a chariot was sometimes merely dressed in a tunic, confined at the waist by a belt; sometimes, however, he wore a coat of mail, very like the Egyptian,[3] consisting of a sort of shirt covered with small plates or scales of metal. This shirt reached at least as low as the knees, beneath which the chariot itself was sufficient protection. It had short sleeves, which covered the shoulder and upper part of the arm, but left the elbow and fore-arm quite undefended.[4] The chief weapon of the warrior was the bow, which is always seen in his hands, usually with the arrow upon the string; he wears, besides, a short sword, suspended at his left side by a strap, and he has commonly a spear within his reach; but we never see him using either of these weapons. He either discharges his arrows against the foe from the standing-board of his chariot, or, commanding the charioteer to halt, descends, and, advancing a few steps before his horses' heads, takes a surer and more deadly aim from *terra firma*. In this case his attendant defends him from missiles by extending in front of him a shield, which he holds in his left hand, while at the same time he makes ready to repel any close assailant by means of a spear or sword grasped firmly in his right. The warrior's face and arms are always bare; sometimes the entire head is undefended,[5] though more commonly it has the protection of a helmet. This, however, is without a vizor, and does not often so much as cover the ears. In some few instances only is it furnished with flaps or lappets; which, where they exist, seem to be made of metal scales, and, falling over the shoulders, entirely conceal the ears, the back of the head, the neck, and even the chin.[6]

The position occupied by chariots in the military system of Assyria is indicated in several passages of Scripture, and distinctly noticed by many of the classical writers. When Isaiah began to warn his countrymen of the miseries in store for them

[3] On the subject of Egyptian scale-armour, see Wilkinson in the author's *Herodotus*, vol. ii. p. 79; and compare the same writer's *Ancient Egyptians*, 1st Series, vol. i. p. 332.

[4] See Layard, *Monuments*, 1st Series, Pls. 18, 20, and 28.

[5] Layard, *Monuments*, Pls. 11, 27, &c. The attendants who accompany the monarch have their heads uncovered as a general rule.

[6] Ibid. Pls. 18 and 28. See woodcut, infra, p. 441.

at the hands of the new enemy which first attacked Judæa in his day, he described them as a people "whose arrows were sharp, and all their bows bent, whose horses' hoofs should be counted like flint, and their *wheels* like a whirlwind."[7] When in after days he was commissioned to raise their drooping courage by assuring them that they would escape Sennacherib, who had angered God by his pride, he noticed, as one special provocation of Jehovah, that monarch's confidence in "the multitude of his *chariots*."[8] Nahum again, having to denounce the approaching downfall of the haughty nation, declares that God is "against her, and will burn her *chariots* in the smoke."[9] In the fabulous account which Ctesias gave of the origin of Assyrian greatness, the war-chariots of Ninus were represented as amounting to nearly eleven thousand,[10] while those of his wife and successor, Semiramis, were estimated at the extravagant number of a hundred thousand![11] Ctesias further stated that the Assyrian chariots, even at this early period, were armed with scythes, a statement contradicted by Xenophon, who ascribes this invention to the Persians,[12] and one which receives no confirmation from the monuments. Amid all this exaggeration and inventiveness one may still trace a knowledge of the fact that war-chariots were highly esteemed by the Assyrians from a very ancient date, while, from other notices we may gather that they continued to be reckoned an important arm of the military service to the very end of the Empire.[1]

Next to the war-chariots of the Assyrians we must place their cavalry, which seems to have been of scarcely less importance in their wars. Ctesias, who amid all his exaggerations shows glimpses of some real knowledge of the ancient condition of the Assyrian people, makes the number of the horsemen in their

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[7] Is. v. 28.

[8] Ibid. xxxvii. 24. Compare 2 K. xix. 23.

[9] Nahum ii. 13. The mention of chariots in verse 4 *may* bear on this point. More probably, however, the chariots intended both in that verse and in iii. 2, are those of Assyria's enemies.

[10] Diod. Sic. ii. 5, § 4.

[11] Ibid. ii. 17, § 1. Compare Suidas ad voc. Σεμίραμις.

[12] *De Inst. Cyr.* vi. 1, § 30.

[1] Teutamus was said to have sent 200 chariots with Memnon to Troy (Diod. Sic. ii. 22, § 2). The same number is assigned by Xenophon to the Assyrian adversary of Cyrus (*De Inst. Cyr.* ii. 1, § 5).

armies always greatly exceed that of the chariots.[2] The writer of the Book of Judith gives Holofernes 12,000 horse-archers,[3] and Ezekiel seems to speak of all the "desirable young men" as "horsemen riding upon horses."[4] The sculptures show on the whole a considerable excess of cavalry over chariots, though the preponderance is not uniformly exhibited throughout the different periods.

During the time of the Upper dynasty, cavalry appear to have been but little used. Tiglath-pileser I. in the whole of his long Inscription has not a single mention of them, though he speaks of his chariots continually. In the sculptures of Asshur-izir-pal, the father of the Black-Obelisk king, while chariots abound, horsemen occur only in rare instances. Afterwards, under Sargon and Sennacherib, we notice a great change in this respect. The chariot comes to be almost confined to the king, while horsemen are frequent in the battle scenes.

In the first period the horses' trappings consisted of a headstall, a collar, and one or more strings of beads. The headstall was somewhat heavy, closely resembling that of the chariot-horses of the time, representations of which have been already given.[5] It had the same heavy axe-shaped bit, the same arrangement of straps, and nearly the same ornamentation. The only marked difference was the omission of the crest or plume, with its occasional accompaniment of streamers. The collar was very peculiar. It consisted of a broad flap, probably of leather, shaped almost like a half-moon, which was placed on the neck about halfway between the ears and the withers, and thence depended over the breast, where it was broadened out and ornamented by large drooping tassels. Occasionally the collar was plain,[6] but more often it was elaborately patterned. Sometimes pomegranates hung from it, alternating with the tassels.[7]

The cavalry soldiers of this period ride without any saddle.[8]

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[2] Ap. Diod. Sic. ii. 5, § 4, and 17, § 1.
[3] Judith ii. 15.
[4] Ezek. xxiii. 6 and 23.
[5] Supra, pp. 407, 411, 414, &c. Compare p. 231.
[6] See above, p. 231.
[7] Layard, *Monuments*, 1st Series, Pl. 32.
[8] For a representation, see *Nineveh and its Remains*, vol. ii. p. 357. Saddles are not absolutely unknown, for on the horse

Their legs and feet are bare, and their seat is very remarkable. Instead of allowing their legs to hang naturally down the horses' sides, they draw them up till their knees are on a level with their chargers' backs, the object (apparently) being to obtain a firm seat by pressing the base of the horse's neck between the two knees. The naked legs seem to indicate that it was found necessary to obtain the fullest and freest play of the muscles to escape the inconveniences of a fall.

The chief weapon of the cavalry at this time is the bow. Sword and shield indeed are worn, but in no instance do we see them used. Cavalry soldiers are either archers or mere attendants who are without weapons of offence. One of these latter accompanies each horse-archer in battle, for the purpose of holding and guiding his steed while he discharges his arrows. The attendant wears a skull-cap and a plain tunic; the archer has an embroidered tunic, a belt to which his sword is attached, and one of the ordinary pointed helmets.

In the second period the cavalry consists in part of archers, in part of spearmen. Unarmed attendants are no longer found, both spearmen and archers appearing to be able to manage their own horses. Saddles have now come into common use: they consist of a simple cloth, or flap of leather, which is either cut square, or shaped somewhat like the saddle-cloths of our own cavalry.[9] A single girth beneath the belly is their ordinary fastening; but sometimes they are further secured by means of a strap or band passed round the breast, and a few instances occur of a second strap passed round the quarters. The breast-strap is generally of a highly ornamented character. The head-stall of this period is not unlike the earlier one, from which it differs chiefly in having a crest, and also a forehead ornament composed of a number of small bosses. It has likewise com-

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which a mounted attendant leads for the king behind his chariot, we see in every instance a square-cut cloth, fringed and patterned. (Layard, *Monuments*, 1st Series, Pls. 11, 21, 32, and 49, 1.) But no other horse besides the king's is thus caparisoned.

[9] The square shape (supra, p. 232) is, apparently, reserved for the monarch and his immediate attendants. Ordinary soldiers have the cloth which runs out to a point (infra, pp. 425, 426). Sometimes, even during this period, there is no saddle. (Layard, *Monuments*, 1st Series, Pl. 64; Botta, *Monument*, vol. ii. Pls. 87, 88, 94, 99, &c.)

monly a strap across the nose, but none under the cheek-bones. It is often richly ornamented, particularly with rosettes, bells, and tassels.[10]

The old pendant collar is replaced by one encircling the neck about halfway up, or is sometimes dispensed with altogether. Where it occurs, it is generally of uniform width, and is orna-

Mounted spearman of the time of Sargon.

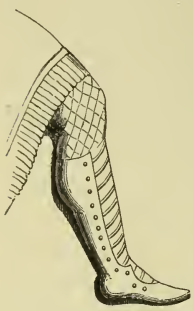
mented with rosettes or tassels. No conjecture has been formed of any use which either form of collar could serve; and the probability is that they were intended solely for ornament.

A great change is observable in the sculptures of the second period with respect to the dress of the riders. The cavalry soldier is now completely clothed,[11] with the exception of his

[10] See the "Head of an Assyrian Horse," on p. 231, and the "Groom and Horses," p. 350.

[11] A few instances occur where the legs are still naked, more especially in Sargon's sculptures (Layard, *Monuments*,

two arms, which are bare from a little below the shoulder. He wears most commonly a tunic which fits him closely about the body, but below the waist expands into a loose kilt or petticoat, very much longer behind than in front, which is sometimes patterned, and always terminates in a fringe. Round his waist he has a broad belt; and another, of inferior width, from which a sword hangs, passes over his left shoulder.[1] His legs are encased in a close-fitting pantaloon or trouser, over which he wears a laced boot or greave, which generally reaches nearly to the knee, though sometimes it only covers about half the calf. This costume, which is first found in the time of Sargon, and continues to the reign of Asshur-bani-pal, Esarhaddon's son, may properly be regarded as the regular cavalry uniform under



Greave or laced boot.

Cavalry soldiers of the time of Sennacherib.

the monarchs of the Lower Empire. In Sennacherib's reign there is found in conjunction with it another costume, which is unknown to the earlier sculptures. This consists of a dress closely

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1st Series, Pl. 64; Botta, *Monument*, vol. ii. Pls. 87, 142). But the *rule* is as stated in the text.

[1] Sometimes this belt passes over the right shoulder; sometimes it is omitted altogether, and the spearman or archer has no sword.

fitting the whole body, composed apparently of a coat of mail, leather or felt breeches, and a high greave or jack-boot. The wearers of this costume are spearmen or archers indifferently. The former carry a long weapon, which has generally a rather small head, and is grasped low down the shaft. The bow of the latter is either round-arched or angular, and seems to be not more than four feet in length; the arrows measure less than three feet, and are slung in a quiver at the archer's back. Both spearmen and archers commonly carry swords, which are hung on the left side, in a diagonal, or sometimes nearly in a horizontal, position. In some few cases the spearman is also an archer, and carries his bow on his right arm, apparently as a reserve in case he should break or lose his spear.[2]

Horse archer of the latest period.

The seat of the horseman is far more graceful in the second than in the first period; his limbs appear to move freely, and his mastery over his horse is such that he needs no attendant. The spearman holds the bridle in his left hand; the archer boldly lays it upon the neck of his steed, who is trained either to continue his charge, or to stand firm, while a steady aim is taken.

In the sculptures of the son and successor of Esarhaddon, the horses of the cavalry carry not unfrequently, in addition to the ordinary saddle or pad, a large cloth nearly similar to that worn sometimes by chariot-horses, of which a representation has been already given.[3] It is cut square with two drooping lappets, and covers the greater part of the body. Occasionally it is united to a sort of breastplate which protects the neck, descending about halfway down the chest. The material may be supposed to have been thick felt or leather, either of which would have been a considerable protection against weapons.

[2] See the woodcut on p. 425.

[3] Supra, p. 416.

While the cavalry and the chariots were regarded as the most important portions of the military force, and were the favourite services with the rich and powerful, there is still abundant reason to believe that Assyrian armies, like most others,[4] consisted mainly of foot. Ctesias gives Ninus 1,700,000 footmen to 210,000 horsemen, and 10,600 chariots.[5] Xenophon contrasts the multitude of the Assyrian infantry with the comparatively scanty numbers of the other two services.[6] Herodotus makes the Assyrians serve in the army of Xerxes on foot only.[7] The author of the book of Judith assigns to Holofernes an infantry force ten times as numerous as his cavalry.[8] The Assyrian monuments entirely bear out the general truth involved in all these assertions, showing us, as they do, at least ten Assyrian warriors on foot for each one mounted on horseback, and at least a hundred for each one who rides in a chariot. However terrible to the foes of the Assyrians may have been the shock of their chariots and the impetuosity of their horsemen, it was probably to the solidity of the infantry,[1] to their valour, equipment, and discipline, that the empire was mainly indebted for its long series of victories.

In the time of the earliest sculptures, all the Assyrian foot-soldiers seem to have worn nearly the same costume. This consisted of a short tunic, not quite reaching to the knees, confined round the waist by a broad belt, fringed, and generally

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[4] In settled empires the cavalry rarely amounts to one-fifth of the infantry force. In early Rome the proportion seems to have been one-tenth (Mommsen, *History of Rome*, vol. i. p. 97, E. T.); in the imperial legion it was little more than a twentieth. Among the Persians it was even less than this, being only one-twenty-fifth at Arbela (Arr. *Exp. Al.* iii. 8). Alexander the Great, who laid great stress on the cavalry service, made the proportion in his armies one-sixth, or a little more (ibid. i. 11; iii. 12, &c.). It is only when races are in the nomadic condition that the relation of the two arms is inverted. The hordes of Genghis consisted almost entirely of cavalry, and the Scythians attacked by Darius had not a footman among them. (Herod. iv. 46.)

[5] Ap. Diod. Sic. ii. 5, § 4.

[6] *De Inst. Cyr.* ii. 1, § 5.

[7] Herod. vii. 84-87.

[8] Judith ii. 5.

[1] The prophet Isaiah, while seizing such salient points as the "horses' hoofs that are counted like flint," and the chariot "wheels, that are like a whirlwind," to give force to his description, assigns its due place to the Assyrian infantry, of which he says: "They shall come with speed, swiftly; none shall be weary nor stumble among them; none shall slumber nor sleep; neither shall the girdle of their loins be loosed, nor the latchet of their shoes be broken; whose arrows are sharp, and all their bows bent." (Is. v. 27, 28.)

opening in front, together with a pointed helmet, probably of metal. The arms, legs, neck, and even the feet, were ordinarily bare, although these last had sometimes the protection of a very simple sandal. Swordsmen used a small straight sword or dagger which they wore at their left side in an ornamented sheath, and a shield which was either convex and probably of metal, or oblong-square and composed of wicker-work.[2] Spearmen had shields of a similar shape and construction, and carried in their right hands a short pike or javelin, certainly not exceeding five feet in length. Sometimes, but not always, they carried, besides the pike, a short sword. Archers had rounded bows about four feet in length and arrows a little more than three feet long. Their quivers, which were often highly ornamented, hung at their backs, either over the right or over the left shoulder. They had swords suspended at

Ordinary sandal of the first period.

Convex shield of the first period (Nimrud).

Foot spearman of the first period, with wicker shield (Nimrud).

Foot archer, with attendant—first period (Nimrud).

their left sides by a cross-belt, and often carried maces, probably of bronze or iron, which bore a rosette or other ornament at one

[2] Round shields or targes are also sometimes worn by swordsmen at this time (Layard's *Monuments*, 1st Series, Pl. 29); but they are comparatively uncommon.

end, and a ring or strap at the other. The tunics of archers were sometimes elaborately embroidered;[3] and on the whole they seem to have been regarded as the flower of the foot-soldiery. Generally they are represented in pairs, the two being in most cases armed and equipped alike; but, occasionally, one of the pair acts as guard while the other takes his aim. In this case both kneel on one knee, and the guard, advancing his long wicker shield, protects both himself and his comrade from missiles, while he has at the same time his sword drawn to repel all hand-to-hand assailants.

In the early part of the second period, which synchronises with the reign of Sargon, the difference in the costumes of the foot-soldiers becomes much more marked. The Assyrian infantry now consists of two great classes, archers and spearmen.[4] The archers are either light-armed or heavy-armed, and of the latter there are two clearly distinct varieties. The light-armed have no helmet, but wear on their heads a mere fillet or band, which is either plain or patterned. Except for a cross-belt which supports the quiver, they are wholly naked to the middle. Their only garment is a tunic of the scantiest dimensions, beginning at the waist, round which it is fastened by a broad belt or girdle, and descending little more than halfway down the thigh. In its make it sometimes closely resembles the tunic of the first period,[5] but more often it has the peculiar pendant ornament, which has been compared to the Scotch phillibeg,[6] and which will be here given that name. It is often patterned with squares and gradines. The light-armed archer

Foot archers of the lightest equipment. (Time of Sargon.)

[3] Layard, *Monuments*, 1st Series, Pl. 26.

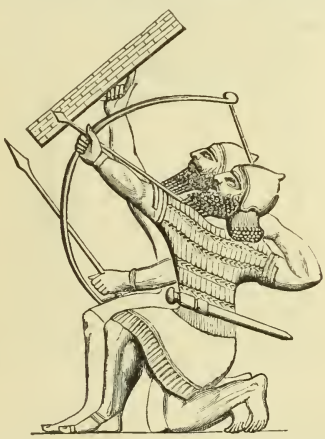
[4] Swordsmen scarcely appear as a class. They occur only in twos and threes at the sieges, where they exactly resemble the swordsmen of the first period.

[5] See Botta, *Monument de Ninive*, vol. i. Pl. 61.

[6] Layard, *Nineveh and its Remains*, vol. ii. p. 336.

has usually bare feet; occasionally, however, he wears the slight sandal of this period, which is little more than a cap for the heel held in place by two or three strings passed across the instep. There is nothing remarkable in his arms, which resemble those of the preceding period; but it may be observed that, while shooting, he frequently holds two arrows in his right hand besides that which is upon the string. He shoots either kneeling or standing, generally the latter. His ordinary position is in the van of battle, though sometimes a portion of the heavy-armed troops precede him.[7] He has no shield, and is not protected by an attendant,[8] thus running more risk than any of the rest of the army.

The more simply equipped of the heavy archers are clothed in a coat of mail, which reaches from their neck to their middle, and partially covers the arms. Below this they wear a fringed tunic reaching to the knees, and confined at the waist by a broad belt of the ordinary character. Their feet have in most instances the protection of a sandal, and they wear on their heads the common or pointed helmet. They usually discharge their arrows kneeling on the left knee, with the right foot advanced before them. During this operation they are protected by an attendant, who is sometimes dressed like themselves, sometimes merely clad in a tunic, without a coat of mail. Like them, he wears a pointed helmet; and while in one hand he carries a spear, with the other he holds forward a shield, which is either of a round form—apparently, of metal embossed with figures[9]—



Foot archer of the intermediate equipment, with attendant. (Time of Sargon.)

[7] Botta, Pls. 95 and 98.

[8] One instance only of such protection is to be found in M. Botta's work. (See vol. i. Pl. 62.)

[9] See the woodcuts, infra, p. 447.

or oblong-square in shape, and evidently made of wickerwork. Archers of this class are the least common, and scarcely ever occur unless in combination with some of the class which has the heaviest equipment.

The principal characteristic of the third or most heavily armed class of archers is the long robe, richly fringed, which descends nearly to their feet, thus completely protecting all the lower part of their person. Above this they wear a coat of mail exactly resembling that of archers of the intermediate class, which is sometimes crossed by a belt ornamented with cross-bars. Their head is covered by the usual pointed helmet, and their feet are always, or nearly always, protected by sandals. They are occasionally represented without either sword or quiver,[10] but more usually they have a short sword at their left side, which appears to have been passed through their coat of mail, between the armour plates, and in a few instances they have also quivers at their backs.[1] Where these are lacking, they generally either carry two extra arrows in their right hand,[2] or have the same number borne for them by an attendant.[3] They are never seen unattended: sometimes they have one, sometimes two attendants,[4] who accompany them, and guard them from attack. One of these almost always bears the long wicker shield, called by the Greeks γέρρον,[5] which he rests firmly upon the ground in front of himself and comrade. The

Foot archer of the heavy equipment, with attendant. (Time of Sargon.)

[10] See the woodcut above.

[1] Botta, *Monument de Ninive*, vol. i. Pl. 60.

[2] Ibid. vol. i. Pl. 77.

[3] Ibid. vol. i. Pl. 62; vol. ii. Pl. 99.

[4] Two attendants are comparatively uncommon, but they will be seen in M. Botta's work, Pls. 55, 60, and 95; possibly also in Pl. 99.

[5] Herod. ix. 62; Xen. *Anab.* i. 8, § 9. Sometimes the γέρρον is straight, sometimes it curves backwards towards the top. (See below, p. 445.)

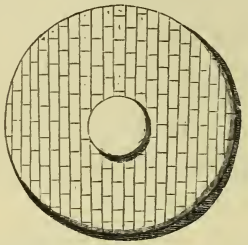
other, where there is a second, stands a little in the rear, and guards the archer's head with a round shield or targe. Both attendants are dressed in a short tunic, a phillibeg, a belt, and a pointed helmet. Generally they wear also a coat of mail and sandals, like those of the archer. They carry swords at their left sides, and the principal attendant, except when he bears the archer's arrows, guards him from attack by holding in advance a short spear. The archers of this class never kneel, but always discharge their arrows standing. They seem to be regarded as the most important of the foot-soldiers, their services being more particularly valuable in the siege of fortified places.

Foot spearman of the time of Sargon (Khorsabad).

The spearmen of this period are scarcely better armed than the second or intermediate class of archers. Except in very rare instances they have no coat of mail, and their tunic, which is either plain or covered with small squares, barely reaches to the knee. The most noticeable point about them is their helmet, which is never the common pointed or conical one, but is always surmounted by a crest of one kind or another.[6] A further very frequent peculiarity is the arrangement of their cross-belts, which meet on the back and breast, and are ornamented at the points of junction with a circular disk, probably of metal. The shield of the spearmen is also circular, and is formed—generally, if not always—of wicker-work, with (occasionally) a central boss of wood or metal. In most cases their legs are wholly bare; but sometimes they have sandals, while in one or two instances[7] they wear a low boot or greave laced

[6] On the variety in the crests of Assyrian helmets, see below, page 442.
[7] Botta, *Monument*, vol. ii. Pls. 90 and 93.

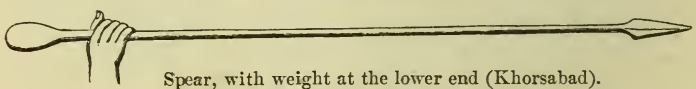
in front and resembling that of the cavalry.[8] The spear with which they are armed varies in length, from about four to six feet. It is grasped near the lower extremity, at which a weight



Shield of a spearman (Khorsabad).

Greave of a spearman (Khorsabad).

was sometimes attached, in order the better to preserve the balance. Besides this weapon they have the ordinary short



Spear, with weight at the lower end (Khorsabad).

sword. The spearmen play an important part in the Assyrian wars, particularly at sieges, where they always form the strength of the storming party.

Some important changes seem to have been made under Sennacherib in the equipment and organisation of the infantry force. These consisted chiefly in the establishment of a greater number of distinct corps differently armed, and in an improved equipment of the more important of them. Sennacherib appears to have been the first to institute a corps of slingers, who at any rate make their earliest appearance in his sculptures. They were a kind of soldier well known to the Egyptians;[9] and Sennacherib's acquaintance with the Egyptian warfare may have led to their introduction among the troops of Assyria. The slinger in most countries where his services were employed was lightly clad, and reckoned almost as a supernumerary. It

[8] Vide supra, page 426.

[9] See Wilkinson's *Ancient Egyptians*, 1st Series, vol. i. p. 316. A slinger is represented among the enemies of the Assyrians in one of the earliest sculptures. (Layard, *Monuments*, 1st Series, Pl. 29.)

is remarkable that in Assyria he is, at first, completely armed according to Assyrian ideas of completeness, having a helmet, a coat of mail to the waist, a tunic to the knees, a close-fitting trouser, and a short boot or greave. The weapon which distinguishes him appears to have consisted of two pieces of rope or string,[1] attached to a short leathern strap which received the stone. Previous to making his throw, the slinger seems to have whirled the weapon around his head two or three times, in order to obtain an increased impetus—a practice which was also known to the Egyptians and the Romans.[2] With regard to ammunition, it does not clearly appear how the Assyrian slinger was supplied. He has no bag like the Hebrew slinger,[3] no *sinus* like the Roman.[4] Frequently we see him simply provided with a single extra stone which he carries in his left hand. Sometimes, besides this reserve, he has a small heap of stones at his feet; but whether he has collected them from the field, or has brought them with him and deposited them where they lie, is not apparent.

Sling (Koyunjik).

Foot archer of the heavy equipment, with attendant. (Time of Sennacherib.)

Sennacherib's archers fall into four classes, two of which may be called heavy-armed and two light-armed. None of them exactly resemble the archers of Sargon. The most

[1] Sometimes the twist of the string is very clearly discernible, as represented above in the woodcut.

[2] For the Roman usage see the well-known lines of Virgil,—

"Stridentem fundam, positis Mezentius hastis,
Ipse *ter* adducta *circum caput egit* habena."
—*Æn.* ix. 586, 587.

For the Egyptian, consult Wilkinson, *Ancient Egyptians*, 1st Series, vol. i. p. 316.

[3] "And David took his staff in his hand, and chose him five smooth stones out of the brook, and put them in a shepherd's *bag* which he had, even in a scrip, and his sling was in his hand," &c. (1 Sam. xvii. 40.)

[4] See a representation in Smith's *Dictionary of Greek and Roman Antiquities*, s. v. Funda.

heavily equipped wears a tunic, a coat of mail reaching to the waist, a pointed helmet, a close-fitting trouser, and a short boot or greave. He is accompanied by an attendant (or sometimes by two attendants[5]) similarly attired, and fights behind a large wicker shield or *gerrhon*. A modification of this costume is worn by the second class, the archers of which have bare legs, a tunic which seems to open at the side, and a phillibeg. They fight without the protection of a shield, generally in pairs, who shoot together.

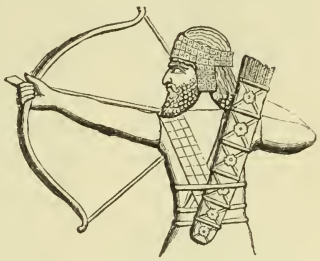
Foot archers of the second class. (Time of Sennacherib.)

Belts and head-dress of a foot archer of the third class. (Time of Sennacherib.)

The better equipped of the light-armed archers of this period have a costume which is very striking. Their head-dress consists of a broad fillet, elaborately patterned, from which there often depends on either side of the head a large lappet, also richly ornamented, generally of an oblong-square shape, and terminating in a fringe. Below this they wear a closely-fitting tunic, as short as that worn by the light-armed archers of Sar-

[5] See Layard's *Monuments*, 2nd Series, Pl. 20.

gon,[6] sometimes patterned, like that, with squares and gradines, sometimes absolutely plain. The upper part of this tunic is crossed by two belts of very unusual breadth, which pass respectively over the right and the left shoulder. There is also a third broad belt round the waist; and both this and the transverse belts are adorned with elegant patterns. The phillibeg depends from the girdle, and is seen in its full extent, hanging either in front or on the right side. The arms are naked from the shoulder, and the legs from considerably above the knee, the feet alone being protected by a scanty sandal.[7] The ordinary short sword is worn at the side, and a quiver is carried at the back; the latter is sometimes kept in place by means of a horizontal strap which passes over it and round the body.



Mode of carrying the quiver. (Time of Sennacherib.)

The archers of the lightest equipment wear nothing but a fillet, with or without lappets, upon the head, and a striped tunic,[8] longer behind than in front, which extends from the neck to the knees, and is confined at the waist by a girdle. Their arms, legs, and feet are bare; they have seldom any sword; and their quiver seems to be suspended only by a single horizontal strap, like that represented in the upper woodcut. They do not appear

Foot archers of the lightest equipment. (Time of Sennacherib.)

[6] See above, page 430.

[7] Sometimes the feet also are bare. (Layard, *Monuments*, 2nd Series, Pl. 20.)

[8] This tunic is very incorrectly represented by Mr. Layard's artist in Pl. 20 of the 2nd Series of *Monuments*. He has omitted almost all the stripes, and has only in one instance sufficiently marked the fall of the tunic behind.

very often upon the monuments: when seen, they are interspersed among archers and soldiers of other classes.

Sennacherib's foot spearmen are of two classes only. The better armed have pointed helmets, with lappets protecting the ears, a coat of mail descending to the waist and also covering all the upper part of the arms, a tunic opening at the side, a phillibeg, close-fitting trousers, and greaves of the ordinary character. They carry a large convex shield, apparently of metal, which covers them almost from head to foot, and a spear somewhat less than their own height.[9] Commonly they have a short sword at their right side. Their shield is often ornamented with rows of bosses towards the centre and around the edge. It is ordinarily carried in front;[1] but when the warrior is merely upon the march, he often bears it slung at his back, as in the accompanying representation. There is reason to suspect that the spearmen of this description constituted the royal body-guard. They are comparatively few in number, and are usually seen in close proximity to the monarch, or in positions which imply trust, as in the care of prisoners and of the spoil. They never make the attacks in sieges, and are rarely observed to be engaged in battle. Where several of them are seen together, it is almost always in attendance upon the king, whom they constantly precede upon his journeys.[2]

Foot spearman of the time of Sennacherib.

The inferior spearmen of Sennacherib are armed nearly like those of Sargon.[3] They have crested helmets, plain tunics confined at the waist by a broad girdle, cross-belts ornamented with circular disks where they meet in the centre of the breast, and,

[9] The spear in the accompanying representation is somewhat longer, and the shield somewhat shorter, than usual.

[1] See the representation in Mr. Layard's *Nineveh and its Remains*, vol. ii. p. 345.

[2] See Layard, *Monuments*, 1st Series, Pls. 72 and 80; 2nd Series, Pls. 29, 42, and 43.

[3] Supra, p. 433.

most commonly, round wicker shields. The chief points wherein they differ from Sargon's spearmen are the following: they usually (though not universally) wear trousers and greaves; they have sleeves to their tunics, which descend nearly to the elbow; and they carry sometimes, instead of the round shield, a long convex one arched at the top. Where they have not this defence, but the far commoner targe, it is always of larger dimensions than the targe of Sargon, and is generally surrounded by a rim. Sometimes it appears to be of metal; but more often it is of wickerwork, either of the plain construction common in Sargon's time, or of one considerably more elaborate.

Wicker shield of spearmen. (Time of Sennacherib.)

Wicker shield or targe. (Time of Sennacherib.)

Among the foot soldiers of Sennacherib we seem to find a corps of pioneers.[4] They wear the same dress as the better equipped of the spearmen, but carry in their hands, instead of a spear, a double-headed axe or hatchet, wherewith they clear the ground for the passage and movements of the army. They work in pairs, one pulling at the tree by its branches while the other attacks the stem with his weapon.

After Sennacherib's time we find but few alterations in the equipment of the foot soldiers. Esarhaddon has left us no sculptures, and in those of his son and successor, Asshur-banipal, the costumes of Sennacherib are for the most part reproduced almost exactly. The chief difference is that there are not at this time quite so many varieties of equipment, both archers and spearmen being alike divided into two classes only, light-armed and heavy-armed. The light-armed archers correspond to Sennacherib's bowmen of the third class.[5] They have

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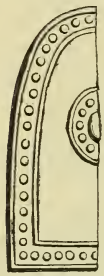
[4] See Layard's *Monuments*, 1st Series, Pl. 76.

[5] Supra, p. 436.

the fillet, the plain tunic, the cross-belts, the broad girdle, and the phillibeg. They differ only in having no lappets over the ears and no sandals. The heavy-armed archers resemble the first class[6] of Sennacherib exactly, except that they are not seen shooting from behind the *gerrhon*.

In the case of the spearmen, the only novelty consists in the shields. The spearmen of the heavier equipment, though sometimes they carry the old convex oval shield, more often have one which is made straight at the bottom, and rounded only at top. The spearmen of the lighter equipment have likewise commonly a shield of this shape, but it is of wickerwork instead of metal, like that borne occasionally by the light-armed spearmen of Sennacherib.[7]



Metal shield of the latest period.

Besides spearmen and archers, we see among the foot soldiers of Asshur-bani-pal, slingers, mace-bearers, and men armed with battle-axes. For the slingers Sennacherib's heavy equipment[8] has been discarded; and they wear nothing but a plain tunic, with a girdle and cross-belts. The mace-bearers and men with axes have the exact dress of Asshur-bani-pal's heavy-armed spearmen, and may possibly be spearmen who have broken or lost their weapons. It makes, however, against this view, that they have no shields, which spearmen always carry. Perhaps, therefore, we must conclude that towards the close of the empire, besides spearmen, slingers, and archers, there were distinct corps of mace-bearers[9] and axe-bearers.

Slinger. (Time of Asshur-bani-pal.)

The arms used by the Assyrians have been mentioned, and to a certain extent described, in the foregoing remarks upon the various classes of their soldiers.

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[6] Supra, p. 435.

[7] A representation of this shield is given on the last page.

[8] Supra, p. 435.

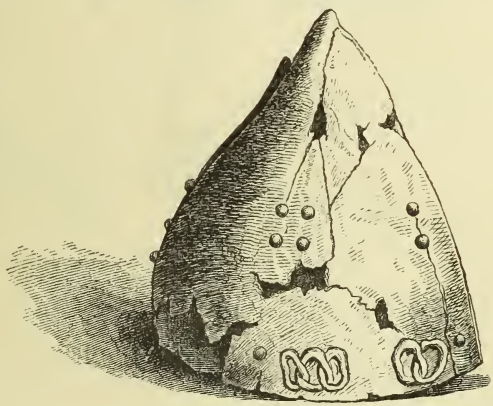
[9] According to Herodotus, the Assyrians in the army of Xerxes "carried lances, daggers, and *wooden clubs knotted*

Some further details may, however, be now added on their character and on the variety observable in them.

The common Assyrian pointed helmet has been sufficiently described already, and has received abundant illustration both in the present and in former chapters. It was at first regarded as Scythic in character; but Mr. Layard long ago observed[1] that the resemblance which it bears to the Scythian cap is too slight to prove any connexion. That cap appears, whether we follow the foreign or the native representations of it,[2] to have been of felt, whereas the Assyrian pointed helmet was made of metal; it was much taller than the Assyrian head-dress, and it was less upright.

Pointed helmet, with curtain of scales (Nimrud).

The pointed helmet admitted of but few varieties. In its simplest form it was a plain conical casque, with one or two rings round the base, and generally with a half-disk in front directly over the forehead. Sometimes, however, there was appended to it a falling curtain covered with metal scales, whereby the chin, neck, ears, and back of the head were protected. More often it had, in lieu of this effectual but cumbrous guard, a mere lappet or cheek-piece, consisting of a plate of metal, attached to the rim, which descended over the ears in the form of a half-oval



Iron helmet (from Koyunjik).

with iron" (*βόπαλα ξύλων τετυλωμένα σιδήρῳ*. Herod. vii. 63). It is possible that this may be a sort of periphrasis for maces, which were not in use among the Greeks of his day.

[1] *Nineveh and its Remains*, vol. ii. p. 341.

[2] For foreign representations, see the author's *Herodotus*, vol. iv. p. 65; and for a native one, see the same work, vol. iii. p. 69.

or semi-circle. If we may judge by the remains actually found, the chief material of the helmet was iron;[3] copper was used only for the rings and the half-disk in front, which were inlaid into the harder metal.

As if to compensate themselves for the uniformity to which they submitted in this instance, the Assyrians indulged in a great variety of crested helmets. We cannot positively say that they invented the crest;[4] but they certainly dealt with it

Assyrian crested helmets, from the bas-reliefs.

in the free spirit which is usually seen where a custom is of home growth and not a foreign importation. They used either a plain metal crest, or one surmounted by tufts of hair; and they either simply curved the crest forwards over the front of

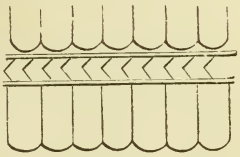
[3] *Nineveh and its Remains*, vol. ii. p. 339. In later times, if we may believe Herodotus, the material of the Assyrian helmets was bronze. (Herod. vii. 63.)

[4] The statement of Herodotus (i. 171) that crests were invented by the Carians is not worth very much; but it at least indicates his belief that the crest was adopted by the Greeks from the Asiatics. The first distinct evidence we have of them is in the Egyptian representations of the *Shairetana*, about B.C. 1200. Homer ascribes them to the Greeks in the time of the Trojan War, which was perhaps earlier than this; and they must at any rate have been common in Greece in his own age, which was probably the 9th century B.C. We cannot prove that they were known to the Assyrians much before B.C. 700.

the helmet, or extended it and carried it backwards also. In this latter case they generally made the curve a complete semicircle, while occasionally they were content with a small segment, less even than a quarter of a circle.[5] They also varied considerably the shape of the lappet over the ear, and the depth of the helmet behind and before the lappet.

Assyrian coats of mail were of three sizes, and of two different constructions. In the earlier times they were worn long, descending either to the feet or to the knees; and at this period they seem to have been composed simply of successive rows of similar iron scales sewn on to a shirt of linen or felt. Under the later monarchs the coat of mail reached no lower than the waist, and it was composed of alternate bands of dissimilar arrangement and perhaps of different material. Mr. Layard suggests that at this time the scales, which were larger than before, were "fastened to bands of iron or copper."[6] But it is perhaps more probable that scales of the old character alternated in rows with scales of a new shape and smaller dimensions. The old scales were oblong, squared at one end and rounded at the other, very much resembling the Egyptian. They were from two to three inches, or more, in length, and were placed side by side, so that their greater length corresponded with the height of the wearer. The new scales seem to have been not more than an inch long; they appear to have been pointed at one end, and to have been laid horizontally, each a little overlapping its fellow.[7] It was probably found that this construction, while possessing quite as much strength as the other, was more favourable to facility of movement.

Scale (Egyptian).



Arrangement of scales in Assyrian scale-armour of the second period (Khorsabad).

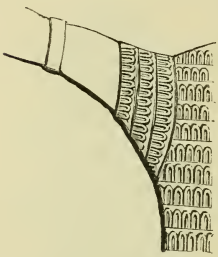
[5] See Fig. 5, which is taken from the Khorsabad sculptures.

[6] See *Nineveh and its Remains*, vol. ii. p. 336.

[7] See above, p. 431.

Remains of armour belonging to the second period have been discovered in the Assyrian ruins.[8] The scales are frequently embossed over their whole surface with groups of figures and fanciful ornaments. The small scales of the first period have no such elaborate ornamentation, being simply embossed in the centre with a single straight line, which is of copper inlaid into the iron.[9]

The Assyrian coat of mail, like the Egyptian,[10] had commonly a short sleeve, extending about half way down to the elbow. This was either composed of scales set similarly to those of the rest of the cuirass,[1] or of two, three, or more rows placed at right angles to the others. The greater part of the arm was left without any protection.



Sleeve of a coat of mail—scale-armour of the first period (Nimrud).

A remarkable variety existed in the form and construction of the Assyrian shields. The most imposing kind is that which has been termed the *gerrhon*, from its apparent resemblance to the Persian shield mentioned under that name by Herodotus.[2] This was a structure in wickerwork, which equalled or exceeded the warrior in height, and which was broad enough to give shelter to two or even three men. In shape it was either an oblong square, or such a square with a projection at top, which stood out at right angles to the body of the shield; or, lastly, and most usually, it curved inwards from a certain height, gradually narrowing at the same time and finally ending in a point. Of course a shield of this vast size, even although formed of a light material, was too heavy to be very readily carried upon the arm. The plan adopted was to rest it upon the ground, on which it was generally held steady by a warrior armed with sword or spear, while his comrade, whose weapon

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[8] Layard, *Nineveh and its Remains*, vol. ii. p. 336, and note.

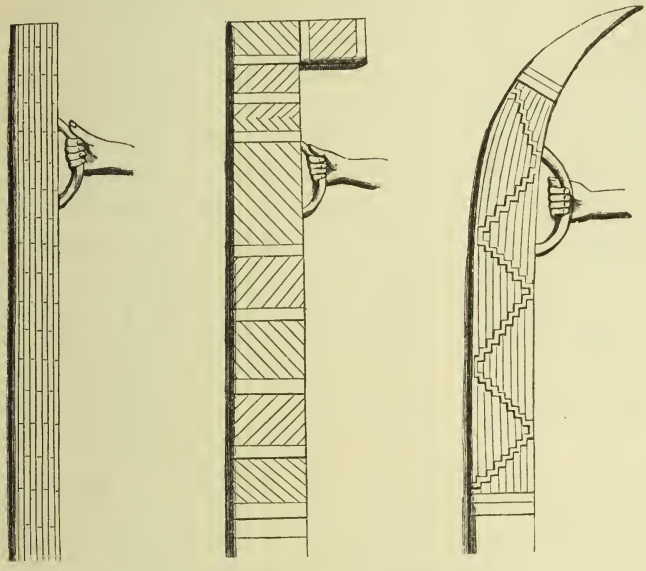
[9] Ibid. vol. i. p. 340; and vol. ii. p. 335.

[10] Wilkinson, *Ancient Egyptians*, 1st Series, vol. i. p. 331. In the Egyptian corselet the plates of the sleeves were not set at right angles to those of the body.

[1] As in the representation given on p. 431.

[2] Herod. vii. 61; ix. 61 and 99. Compare Xen. *Inst. Cyr.* i. 2, § 9, &c.

was the bow, discharged his arrows from behind its shelter. Its proper place was in sieges, where the roof-like structure at the top was especially useful in warding off the stones and other missiles which the besieged threw down upon their assailants. We sometimes see it employed by single soldiers, who lean the



Assyrian *gerrha*, or large wicker shields.

point against the wall[3] of the place, and, ensconcing themselves beneath the penthouse thus improvised, proceed to carry on the most critical operations of the siege in almost complete security.

Modifications of this shield, reducing it to a smaller and more portable size, were common in the earlier times, when among the shields most usually borne we find one of wickerwork, oblong-square in shape, and either perfectly flat, or else curving slightly inwards both at top and at bottom.[4] This shield was commonly about half the height of a man, or a little more; it

[3] See the woodcut, p. 446. The Egyptians supported their large shields with a crutch sometimes. (Wilkinson, in the author's *Herodotus*, vol. iv. pp. 80, 81.) We have no evidence that the Assyrians did the same.

[4] See the woodcuts on pp. 429 and 431.

was often used as a protection for two,[5] but must have been scanty for that purpose.

Round shields were commoner in Assyria than any others. They were used by most of those who fought in chariots, by the early monarchs' personal attendants, by the cross-belted spearmen, and by many of the spearmen who guarded archers. In the most ancient times they seem to have been universally made of solid metal, and consequently they were small, perhaps not often exceeding two feet, or two feet and a half, in diameter.[6] They were managed by means of a very simple handle, placed in the middle of the shield at the back, and fastened to it by studs or nails, which was not passed over the arm but grasped by the hand.[7] The rim was bent inwards, so as to form a deep groove all round the edge. The material of which these shields were composed was in some cases certainly bronze;[8] in others it may have been iron; in a few silver, or even gold.[9] Some metal shields were perfectly plain; others exhibited a number of concentric rings;[10] others again were inlaid or embossed with tasteful and elaborate patterns.

Soldier undermining a wall, sheltered by *gerrhon*.

Among the later Assyrians the round metal shield seems to have been almost entirely disused, its place being supplied by a wicker buckler of the same shape, with a rim round the edge made of solid wood or of metal, and sometimes with a boss in

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[5] Layard, *Monuments*, 1st Series, Pls. 17, 19, 20.

[6] The bronze shields found by Mr. Layard at Nimrud, one of which is represented in his *Nineveh and Babylon* (p. 193), had a diameter of 2½ feet. If we may trust the sculptures, a smaller size was more common.

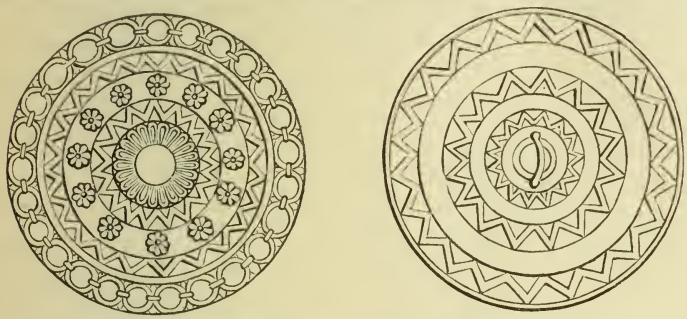
[7] See woodcut, p. 439. The Greeks passed their arm through the bar at the centre of the shield, and grasped a leathern thong near the rim with their hand. (See the author's *Herodotus*, vol. i. p. 306.)

[8] Layard, *Nineveh and Babylon*, p. 194.

[9] Shields of gold were taken from the servants of Hadadezer, king of Zobah (2 Sam. viii. 7), by David. Solomon made 800 such shields (1 K. x. 17). Crœsus dedicated a golden shield at the temple of Amphiaraüs (Herod. i. 52).

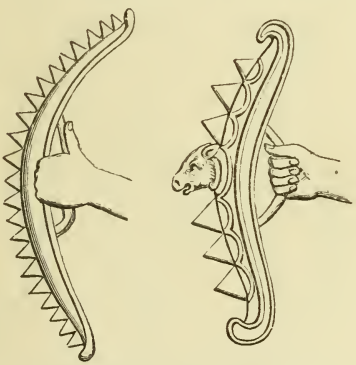
[10] Supra, p. 411.

the centre.[11] The weight of the metal shields must have been considerable; and this both limited their size and made it difficult to move them with rapidity. With the change of material we perceive a decided increase of magnitude; the diameter of the wicker buckler being often fully half the warrior's height, or not much short of three feet.



Round shields or targes, patterned (Khorsabad).

Convex shields, generally of an oblong form, were also in common use during the later period, and one kind is found in the very earliest sculptures. This is of small dimensions and of a clumsy make.[12] Its curve is slight, and it is generally ornamented with a perpendicular row of spikes or teeth, in the centre of which we often see the head of a lion.



Convex shields with teeth (Nimrud).

The convex shields of later date were very much larger than these. They were sometimes square at bottom and rounded at top, in which case they were either made of wickerwork, or (apparently) of metal.[13] These latter had generally a boss in the centre, and both this and the

[11] For representations of round wicker bucklers, see pp. 434 and 439.

[12] A representation of this shield in its simplest form is given on p. 429.

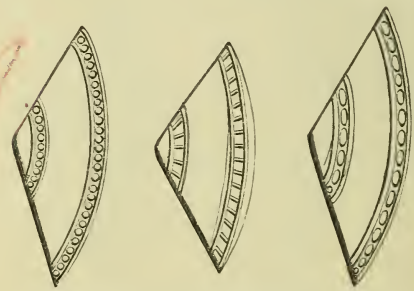
[13] See above, pp. 439 and 440.

edge of the shield were often ornamented with a row of rosettes or rings. Shields of this shape were from four to five feet in height, and protected the warrior from the head to the knee.

Egyptian convex shield, worn on back.

Assyrian ditto (Koyunjik).

On a march they were often worn upon the back, like the convex shield of the Egyptians, which they greatly resembled.



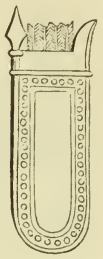
Assyrian convex shield, resembling the Greek (Koyunjik).

The more ordinary convex shield was of an oval form, like the convex shield of the Greeks,[1] but larger and with a more prominent centre. In its greater diameter it must often have exceeded five feet, though no doubt sometimes it was smaller. It was generally ornamented with narrow bands round the edge and round the boss at the centre; the space between the bands being frequently patterned, with rings or otherwise. Like the other form of convex shield, it could be slung at the

[1] For a representation of the Greek shield, see Smith's *Dictionary of Greek and Roman Antiquities*, ad voc. CLIPEUS.

back,[2] and was so carried on marches, on crossing rivers,[3] and other similar occasions.

The offensive arms certainly used by the Assyrians were the bow, the spear, the sword, the mace, the sling, the axe or hatchet, and the dagger. They may also have occasionally made use of the javelin, which is sometimes seen among the arrows of a quiver. But the actual employment of this weapon in war has not yet been found upon the bas-reliefs. If faithfully represented, it must have been very short, scarcely, if at all, exceeding three feet.[4]



Quiver, with arrows and javelin (Nimrud).

Assyrian bows were of two kinds, curved and angular. Compared with the Egyptian,[5] and with the bows used by the archers of the middle ages, they were short, the greatest length of the strung bow being about four feet. They seem to have been made of a single piece of wood, which in the angular bow was nearly of the same thickness throughout, but in the curved one tapered gradually towards the two extremities. At either end was a small knob or button, in the later times often carved into the representation of a duck's head. Close above this was a notch or groove, whereby the string was held in place. The mode of stringing was one still frequently practised in the East. The bowman stooped, and placing his right knee against the middle of the bow on its inner side, pressed it downwards, at the same time drawing the two ends of the bow upwards with his two hands. A comrade stood by, and, when the ends were brought sufficiently near, slipped the string over the knob into the groove, where it

Ornamented end of bow (Khorsabad).

[2] See the woodcut on p. 438.

[3] Layard, *Monuments of Nineveh*, 2nd Series, Pl. 41. Compare infra, p. 464.

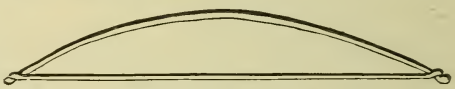
[4] The Roman *pilum*, which is commonly called a javelin, exceeded six feet. The Greek γρόσφος, or dart, was nearly four feet.

[5] See Wilkinson, *Ancient Egyptians*, 1st Series, vol. i. pp. 304, 305.

necessarily remained. The bend of the bow, thus strung, was slight. When full drawn, however, it took the shape of a half-

Stringing the bow (Koyunjik).

moon, which shows that it must have possessed great elasticity. The bow was known to be full drawn when the head of the arrow touched the archer's left hand.



Assyrian curved bow.

The Assyrian angular bow was of smaller size than the curved one. It was not often carried unless as a reserve by those who also possessed the larger and better weapon.

Assyrian angular bow.

Bows were but seldom unstrung. When not in use, they were carried strung, the archer either holding them by the middle with his left hand, or putting his arm through them, and letting

them rest upon his shoulder,[6] or finally carrying them at his back in a bow-case. The bow-case was a portion of the quiver, as frequently with the Greeks,[7] and held only the lower half of the bow, the upper portion projecting from it.

Mode of carrying the bow in a bow-case (Koyunjik).

Quivers were carried by foot and horse archers at their backs, in a diagonal position, so that the arrows could readily be drawn from them over the right shoulder. They were commonly slung in this position by a strap of their own, attached to two rings, one near the top and the other near the bottom of the quiver, which the archer slipped over his left arm and his head. Sometimes, however, this strap seems to have been wanting, and the quiver was either thrust through one of the cross-belts, or

Peculiar mode of carrying the quiver (Koyunjik).

attached by a strap which passed horizontally round the body a little above the girdle.[8] The archers who rode in chariots carried their quivers at the chariot's side, in the manner which has been already described and illustrated.[9]

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[6] Mr. Layard says that the warrior carried the bow upon his shoulders, "having first passed his head through it." (*Nin. and its Remains*, vol. ii. p. 342.) This may have been the case sometimes, but generally both ends of the bow are seen on the same side of the head.

[7] See *Dictionary of Greek and Roman Antiquities*, p. 126, 2nd edition.

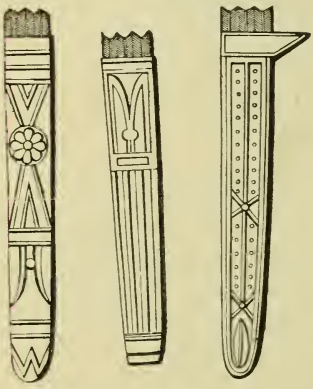
[8] See the woodcut, p. 437.

[9] Supra, pp. 412 and 414.

The ornamentation of quivers was generally elaborate. Rosettes and bands constituted their most usual adornment; but sometimes these gave place to designs of a more artistic character, as wild bulls, griffins, and other mythic figures. Several examples of a rich type have been already given in the representations of chariots,[10] but none exhibit this peculiarity. One further specimen of a chariot quiver is therefore appended, which is among the most tasteful hitherto discovered.

Quiver, with rich ornamentation (Nimrud).

The quivers of the foot and horse archers were less richly adorned than those of the bowmen who rode in chariots, but still they were in almost every case more or less patterned. The rosette and the band here too constituted the chief resource of the artist, who, however, often introduced with good effect other well-known ornaments, as the guilloche, the boss and cross, the zigzag, &c.

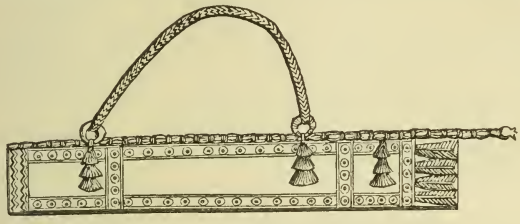


Quivers of the ordinary character.

Sometimes the quiver had an ornamented rod attached to it, which projected beyond the arrows and terminated in a pomegranate blossom or other similar carving. To this rod were attached the rings which received the quiver strap, a triple tassel hanging from them at the point of attachment. The strap was probably of leather, and appears to have been twisted or plaited.

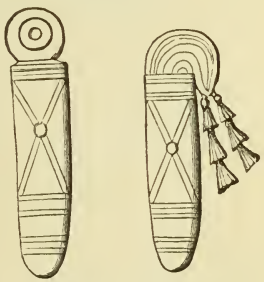
[10] Supra, pp. 412, 414, and 416.

It is uncertain whether the material of the quivers was wood or metal. As, however, no remains of quivers have been discovered in any of the ruins, while helmets, shields, daggers, spear-heads, and arrow-heads have been found in tolerable abundance, we may perhaps assume that they were of the more fragile substance, which would account for their destruction.



Quiver with projecting rod (Khorsabad).

In this case their ornamentation may have been either by carving or painting,[1] the bosses and rosettes being perhaps in some cases of metal, mother-of-pearl, or ivory. Ornaments of this kind were discovered by hundreds at Nimrud in a chamber which contained arms of many descriptions.[2] Quivers have in some cases a curious rounded head, which seems to have been a lid or cap used for covering the arrows.[3] They have also, occasionally, instead of this, a kind of bag[4] at their top, which falls backwards and is ornamented with tassels. Both these constructions, however, are exceptional, a very large majority of the quivers being open and having the feathered ends of the arrows projecting from them.



Assyrian covered quivers (Koyunjik).

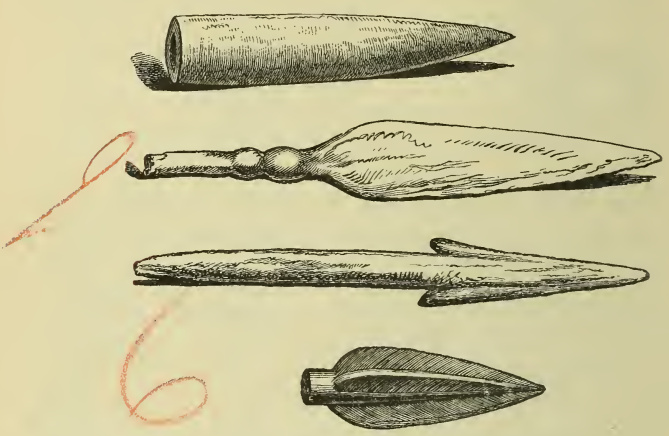
[1] In the Khorsabad sculptures the quivers not unfrequently showed traces of paint. The colour was sometimes red, sometimes blue. (See pp. 363, 364.)

[2] Layard, *Nineveh and Babylon*, p. 177.

[3] The lid was probably attached to the back of the quiver by a hinge, and was made so that it could stand open. The Assyrian artists generally represent it in this position. The quiver, of which it was the top, must also have been round.

[4] Possibly this bag may be the upper part of a bow-case attached to the quiver, which, being made of a flexible material, fell back when the bow was removed. Such a construction was common in Egypt. (Wilkinson, *Ancient Egyptians*, 1st Series, vol. i. pp. 345-347.)

There is nothing remarkable in the Assyrian arrows except their perfect finish and completeness in all that constitutes the excellence of such a weapon. The shaft was thin and straight, and was probably of reed, or of some light and tough wood.[5] The head was of metal,[6] either of bronze or iron, and was generally diamond-shaped, like a miniature spear-head. It was flattish, and for greater strength had commonly a strongly raised line down the centre. The lower end was hollowed, and the shaft was inserted into it. The notching and feathering



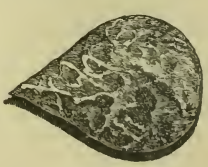
Bronze arrow-heads (Nimrud and Koyunjik).

of the shaft were carefully attended to. It is doubtful whether three feathers were used, as by ourselves and by the Egyptians,[7] or two only, as by many nations. The fact that we never see more than two feathers upon the monuments cannot be con-

[5] Mr. Layard's conjecture that the numerous iron rods which he discovered at Nimrud were "shafts of arrows" (*Nineveh and Babylon*, p. 194) does not seem to me very happy. The burnishing of arrows mentioned in Scripture almost certainly alludes to the points. There is no evidence that such clumsy and inconvenient things as metal shafts were ever used by any nation.

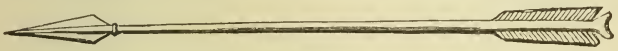
[6] A few stone arrow-heads have been found in the Assyrian ruins. They are pear-shaped and of fine flint, chipped into form. The metal arrow-heads are in a few instances barbed.

[7] Wilkinson, vol. i. p. 309.



Flint arrow-head (Nimrud).

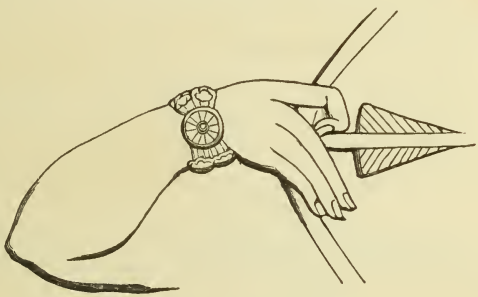
sidered decisive, since the Assyrian artists, from their small knowledge of perspective, would have been unable to represent all three feathers. So far as we can judge from the representations, it would seem that the feathers were glued to the wood



Assyrian arrow.

exactly as they are with ourselves. The notch was somewhat large, projecting beyond the line of the shaft—a construction rendered necessary by the thickness of the bowstring, which was seldom less than that of the arrow itself.

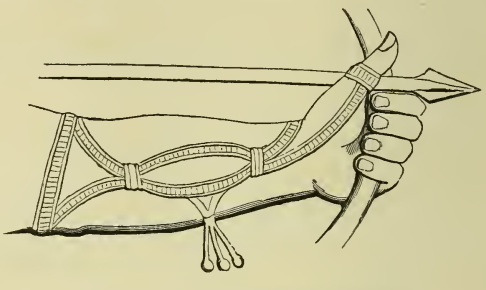
The mode of drawing the bow was peculiar. It was drawn neither to the ear, nor to the breast, but to the shoulder. In the older sculptures the hand that draws it is represented in a curiously cramped and unnatural position,[8] which can scarcely be supposed to be true to nature. But in the later bas-reliefs greater accuracy seems to have been attained, and there we probably see the exact mode in which the shooting was actually managed. The arrow was taken below the feathers by the thumb and fore-finger of the right hand, the fore-finger bent down upon it in the way represented in the accompanying woodcut, and the notch being then placed upon the string, the arrow was drawn backwards by the thumb and fore-finger only, the remaining three fingers taking no part in the operation. The bow was grasped by the left hand between the fingers and the muscle of the thumb, the thumb itself being raised, and the arrow made to pass between it and the bow, by which means it was kept in place and prevented from slipping.



Mode of drawing the bow (Koyunjik).

[8] Supra, p. 429.

The arrow was then drawn till the cold metal head touched the fore-finger of the left hand, upon which the right hand quitted its hold, and the shaft sped on its way. To save the left arm



Guard worn by an archer (Koyunjik).

from being bruised or cut by the bowstring, a guard, often simply yet effectively ornamented, was placed upon it, at one end passing round the thumb and at the other round the arm a little above the elbow.

The Assyrians had two kinds of spears, one a comparatively short weapon, varying from five to six feet in length, with which they armed a portion of their foot soldiers, the other a weapon nine or ten feet long, which was carried by most of

Bronze spear-head from Nimrud.

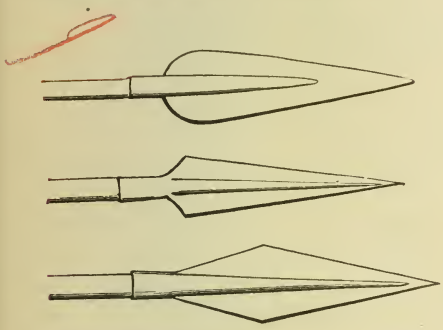
their cavalry.[1] The shaft seems in both cases to have been of wood, and the head was certainly of metal, either bronze or iron.[2] It was most usually diamond-shaped, but sometimes the side angles were rounded off, and the contour became that of an elongated pear. In other instances, the jambs of the spear-head were exceedingly short, and the point long and tapering. The upper end of the shaft was sometimes weighted,[3]

[1] See above, pp. 425 and 426.

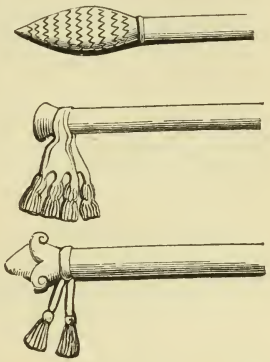
[2] Both bronze and iron spear-heads were found at Nimrud. (Layard, *Nin. and Bab.* p. 194.)

[3] See the illustration on p. 434.

and it was often carved into some ornamental form, as a fir-cone or a pomegranate blossom, while in the earlier times it was further occasionally adorned with streamers. The spear of the



Spear-heads, from the Sculptures.



Ornamented ends of spear-shafts (Nimrud).

Assyrians seems never to have been thrown, like that of the Greeks, but was only used to thrust with, as a pike.

The common sword of the Assyrians was a short straight weapon, like the sword of the Egyptians, or the *acinaces* of the Persians.[4] It was worn at the left side, generally slung by a belt of its own which was passed over the right shoulder, but sometimes thrust through the girdle or (apparently) through the armour.[5] It had a short rounded handle, more or less ornamented, but without any cross-bar or guard,[6] and a short blade which tapered gradually from the handle to the point. The swordsman commonly thrust with his weapon, but he could cut

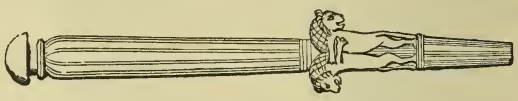
Ornamented handle of short sword (Khorsabad).

[4] Representations of the Persian *acinaces* will be given in a future volume. The reader may likewise consult the author's *Herodotus*, vol. iv. pp. 52, 53.

[5] Botta, *Monument de Ninive*, vol. ii. Pl. 99.

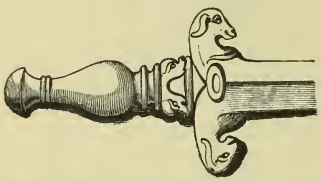
[6] Mr. Layard says (*Nineveh and its Remains*, vol. ii. p. 298) that the swords had often a cross-bar made of two lions' heads, with part of the neck and shoulders. But a careful examination of the monuments, or even of Mr. Layard's own drawings, will (I think) convince any one that the ornament in question is part of the sheath. It is never seen on a drawn sword.

with it likewise, for it was with this arm that the Assyrian warrior was wont to decapitate his fallen enemy. The sheath of



Sheathed sword (Koyunjik).

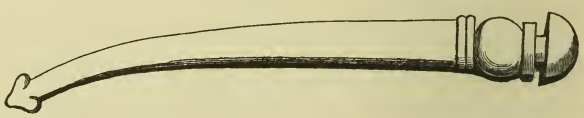
the sword was almost always tastefully designed, and sometimes possessed artistic excellence of a high order. The favourite terminal ornament consisted of two lions clasping one another, with their heads averted and their mouths agape. Above this, patterns in excellent taste usually adorned the scabbard, which moreover exhibited occasionally groups of figures, sacred trees, and other mythological objects.



Ornamented handle of longer sword (Nimrud).

Instead of the short sword, the earlier warriors had a weapon of a considerable length. This was invariably slung at the side by a cross-belt passing over the shoulder. In its ornamentation it closely resembled the later short sword, but its hilt was longer and more tasteful.

One or two instances occur where the sword of an Assyrian warrior is represented as curved slightly. The sheath in these cases is plain, and terminates in a button.

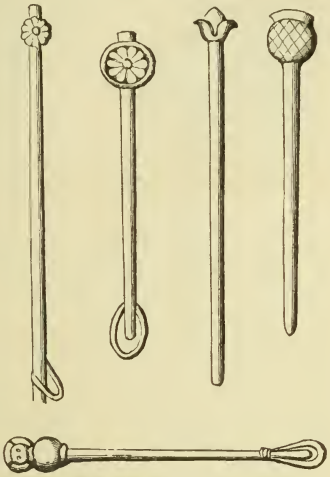


Assyrian curved sword (Khorsabad).

The Assyrian mace was a short thin weapon, and must either have been made of a very tough wood, or—and this is more probable—of metal. It had an ornamented head, which was sometimes very beautifully modelled, and generally a strap or string at the lower end, by which it could be grasped with

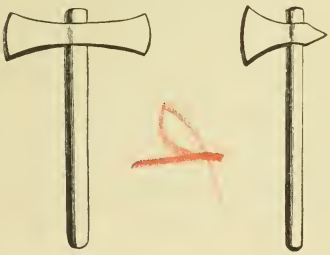
greater firmness. Foot archers frequently carried it in battle, especially those who were in close attendance upon the king's person. It seems, however, not to have been often used as a warlike weapon until the time of the latest sculptures, when we see it wielded, generally with both hands, by a certain number of the combatants.[7] In peace it was very commonly borne by the royal attendants, and it seems also to have been among the weapons used by the monarch himself, for whom it is constantly carried by one of those who wait most closely upon his person.

Head of royal mace (Khorsabad).



Maces, from the Sculptures.

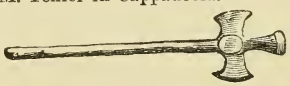
The battle-axe was a weapon but rarely employed by the Assyrians. It is only in the very latest sculptures and in a very few instances that we find axes represented as used by the warriors for any other purpose besides the felling of trees. Where they are seen in use against the enemy, the handle is short, the head somewhat large, and the weapon wielded with one hand. Battle-axes had heads of two kinds. Some were made with two blades, like the *bipennis* of the Romans, and the *labra* of the Lydians and Carians;[8] others more nearly resembled the weapons used by



Assyrian battle-axes (Koyunjik).

[7] See Layard's *Monuments*, 2nd Series, Pl. 46.

[8] See Fellows' *Lycia*, p. 75, and Pl. 35, Figs. 4 and 5. A two-headed axe is likewise represented in some very early sculptures, supposed to be Scythic, found by M. Texier in Cappadocia.



Scythian battle-axe.

our own knights in the middle ages, having a single blade, and a mere ornamental point on the other side of the haft.

The dagger was worn by the Assyrian kings at almost all times in their girdles, and was further often assigned to the

Ornamented handles of daggers (Nimrud).

Handle of dagger, with chain (Nimrud).

mythic winged beings, hawk-headed or human-headed, which occur so frequently in the sculptures; but it seems to have been very seldom carried by subjects.[9] It had commonly a straight handle, slightly concave, and very richly chased, exhibiting the usual Assyrian patterns, rosettes, chevrons, guilloches, pine-cones, and the like. Sometimes, however, it was still more artistically shaped, being cast into the form of a horse's head and neck. In this case there was occasionally a chain attached at one end to the horse's chin, and at the other to the bottom of his neck, which, passing outside the hand, would give it a firmer hold on the weapon. The sheaths of daggers seem generally to have been plain, or nearly so, but occasionally they terminated in the head of an animal, from whose mouth depended a tassel.

Though the Assyrian troops were not marshalled by the aid of standards, like the Roman and the Egyptian, yet still a kind

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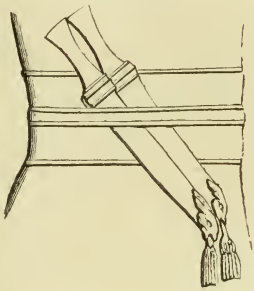
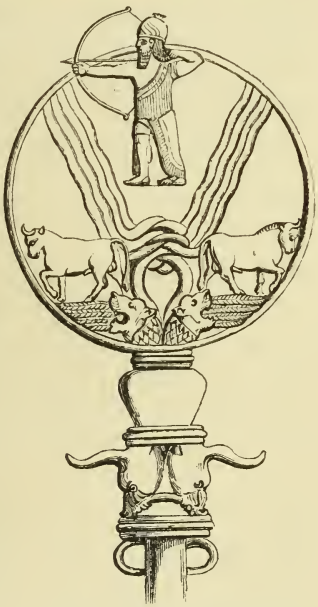
[9] I distinguish between the dagger and the short sword. The place of the former is on the right side; and it is worn invariably in the girdle. The place of the latter is by the left hip, and it hangs almost always from a cross-belt. When Mr. Layard says that "the dagger appears to have been *carried by all*, both in time of peace and war" (*Nineveh and its Remains*, vol. ii. p. 342), he must be understood as not making this distinction.

The only place, so far as I know, where a subject carries a dagger, is on the slab represented by Mr. Layard in his 1st Series of *Monuments*, Pl. 23, where it is borne by one of the royal attendants. In Pl. 31, the hunter who bears two daggers in his girdle is undoubtedly the monarch himself.

of standard is occasionally to be recognised in the bas-reliefs. This consists of a pole of no great height, fixed upright at the front of a chariot, between the charioteer and the warrior, and carrying at the top a circular frame, within which are artistic representations of gods or sacred animals. Two bulls, back to back, either trotting or running at speed, are a favourite device. Above them sometimes stands a figure in a horned cap, shooting his arrows against the enemy. Occasionally only one bull is represented, and the archer shoots standing upon the bull's back.[10] Below the circular framework are minor ornaments, as lions' and bulls' heads, or streamers adorned with tassels.[11]



Sheaths of daggers (Nimrud).



Assyrian standard (Khorsabad).

We do not obtain much information from the monuments with respect to the military organisation or the tactics of the Assyrians. It is clear, however, that they had advanced beyond the first period in military matters, when men fight in a confused mass of mingled horse, foot, and chariots, heavy-armed and light-armed, spearmen, archers, and slingers, each standing and moving as mere chance may determine. It is even certain that they had advanced beyond the second period, when the phalanx order of battle is adopted, the confused mass being replaced by a single serried body presenting its best armed

[10] See Mr. Layard's *Monuments*, 1st Series, Pl. 14. Compare *Nineveh and its Remains*, vol. ii. p. 347.

[11] *Monuments*, 1st Series, Pls. 14 and 27.

troops to the enemy and keeping in the rear, to add their weight to the charge, the weaker and more imperfectly protected. It was not really left for Cyaxares the Mede to "be the first to organise an Asiatic army—to divide the troops into companies and form distinct bodies of the spearmen, the archers, and the cavalry."[1] The Assyrian troops were organised in this way, at least from the time of Sennacherib, on whose sculptures we find, in the first place, bodies of cavalry on the march unaccompanied by infantry;[2] secondly, engagements where cavalry only are acting against the enemy;[3] thirdly, long lines of spearmen on foot marching in double file, and sometimes divided into companies;[4] and fourthly, archers drawn up together, but similarly divided into companies, each distinguished by its own uniform.[5] We also meet with a corps of pioneers, wearing a uniform and armed only with a hatchet,[6] and with bodies of slingers, who are all armed and clothed alike.[7] If, in the battles and the sieges of this time, the troops seem to be to a great extent confused together, we may account for it, partly by the inability of the Assyrian artists to represent bodies of troops in perspective,[8] partly by their not aiming at an actual, but rather at a typical representation of events,[9] and partly also by their fondness for representing, not the preparation for battle or its first shock, but the rout and flight of the enemy and their own hasty pursuit of them.

The wars of the Assyrians, like those of ancient Rome, consisted of annual inroads into the territories of their neighbours,

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[1] Herod. i. 103: Πρῶτος ἐλόχισε κατὰ τέλεα τοὺς ἐν τῇ Ἀσίῃ, καὶ πρῶτος διέταξε χωρὶς ἑκάστους εἶναι, τούς τε αἰχμοφόρους καὶ τοὺς ἱππέας, καὶ τοὺς τοξοφόρους· πρὸ τοῦ δὲ ἀναμὶξ ἦν πάντα ὁμοίως ἀναπεφυρμένα.

[2] Layard, *Monuments of Nineveh*, 1st Series, Pls. 80 and 81.

[3] Ibid. 2nd Series, Pls. 37 and 38.

[4] Ibid. 1st Series, Pl. 69.

[5] Ibid. 2nd Series, Pl. 20.

[6] Ibid. 1st Series, Pl. 76.

[7] Ibid. 2nd Series, Pls. 20 and 21.

[8] The Assyrians in their battle-scenes never represent a long row of men in perspective. Their powers in this respect are limited to two men, or at the utmost three. Where a longer row is attempted, each is nearly on the head of the other, and all are represented as of the same size.

[9] *E.g.* the Assyrian representation of a siege is a sort of history of the siege. The various parts of the attack and defence, together with the surrender and the carrying away of the captives, are all represented in one scene. It is not improbable that each of the different corps who took part in the various attacks is represented by a few men. Hence an apparent confusion.

repeated year after year, till the enemy was exhausted, sued for peace, and admitted the suzerainty of the more powerful nation. The king in person usually led forth his army, in spring or early summer, when the mountain passes were opened, and, crossing his own borders, invaded some one or other of the adjacent countries. The monarch himself invariably rode forth in his chariot, arrayed in his regal robes, and with the tiara upon his head; he was accompanied by numerous attendants, and generally preceded and followed by the spearmen of the Royal Guard, and a detachment of horse-archers. Conspicuous among the attendants were the charioteer who managed the reins, and the parasol-bearer, commonly a eunuch, who, standing in the chariot behind the monarch, held the emblem of sovereignty over his head. A bow-bearer, a quiver-bearer, and a mace-bearer were usually also in attendance, walking before or behind the chariot of the king, who, however, did not often depend for arms wholly upon them, but carried a bow in his left hand, and one or more arrows in his right, while he had a further store of the latter either in or outside his chariot. Two or three led horses were always at hand, to furnish a means of escape in any difficulty. The army, marshalled in its several corps, in part preceded the royal *cortége*, in part followed at a little distance behind it.[10] On entering the enemy's country, if a wooded tract presented itself, the corps of pioneers was thrown out in advance, and cleared away the obstructions. When a river was reached too deep to be forded, the horses were detached from the royal and other chariots by grooms and attendants; the chariots themselves were embarked upon boats and rowed across the stream; while the horses, attached by ropes to a post near the stern of the boat, swam after it. The horses of the cavalry were similarly drawn across by their riders. The troops, both cavalry and infantry, and the attendants, a very numerous body, swam the stream, generally upon inflated skins,[11] which they placed

[10] Compare the Persian practice (Herod. vii. 40; Q. Curt. iii. 3).

[11] It is very seldom that we find a swimmer represented as bold enough to dispense with the support of a skin. Instances, however, do occur. (See Layard, *Monuments*, 1st Series, Pls. 16 and 33.)

under them, holding the neck in their left hand, and sometimes increasing the inflation as they went by applying the orifice at the top of the neck to their mouths. We have no direct evidence as to the mode in which the baggage of an army, which must have been very considerable, was conveyed, either along the general line of route, or when it was necessary to cross a river. We may conjecture that in the latter case it was probably placed upon rafts supported on inflated skins, such as those which conveyed stones from distant quarries to be used in the Assyrian buildings.[1] In the former, we may perhaps assume that the conveyance was chiefly by beasts of burthen, camels and asses, as the author of the Book of Judith imagined.[2] Carts may have been used to some extent; since they were certainly employed to convey back to Assyria the spoil of the conquered nations.[3]

Soldier swimming a river (Koyunjik).

It does not appear whether the army generally was provided with tents or not. Possibly the bulk of the soldiers may have bivouacked in the open field, unless when they were able to obtain shelter in towns or villages taken from the enemy. Tents, however, were certainly provided for the monarch and his suite. Like the tents of the Romans, these appear to have been commonly pitched within a fortified enclosure, which was of an oval shape.[4] They were disposed in rows, and were all

[1] See the representation, p. 338.

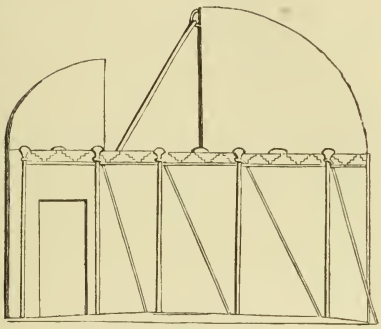
[2] Judith ii. 17: "And he took *camels* and *asses* for their carriages, a very great number; and sheep, and oxen, and goats, without number, for their provision."

I have given elsewhere my reasons (*Herodotus*, vol. i. p. 245, note [8], 1st edition) for regarding the Book of Judith as a post-Alexandrine work, and therefore as no real *authority* on Assyrian history or customs. But the writer had a good acquaintance with Oriental manners in general, which are and always have been remarkably wide-spread and permanent. He may, therefore, fairly be used to fill out a sketch of Assyria.

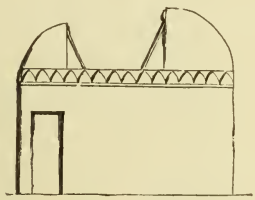
[3] See pp. 234 and 243.

[4] Mr. Layard was at first inclined to regard these enclosures as "castles," or "walled cities" (*Monuments*, 1st Series,

nearly similar in construction and form, the royal tent being perhaps distinguished from the others by a certain amount of ornamentation, and by a slight superiority of size. The material used for the covering was probably felt.[5] All the tents were made open to the sky in the centre, but closed in at either extremity with a curious semicircular top. The two tops were of unequal size. Internally, either both of them, or at any rate the larger ones, were supported by a central pole, which threw out branches in different directions resembling the branches of a tree or the spokes of a parasol. Sometimes the walls of the tent had likewise the support of poles, which were kept in place by ropes passed obliquely from the top of each to the ground in front of them, and then firmly secured by pegs. Each tent had a door, square-headed, which was placed at the side, near the end which had the smaller covering. The furniture of tents consisted of tables, couches, footstools, and domestic utensils of various kinds.



Royal tent (Koyunjik).



Ordinary tent (Koyunjik).

Interior of tent (Koyunjik).

Pls. 63 and 77 ; 2nd Series, Pls. 24, 36, and 50). But in his latest work (*Nineveh and Babylon*, p. 230) he takes the view adopted in the text, that they are really "fortified camps and not cities." No one will hesitate to admit this conclusion who compares with the enclosures the actual plan of a walled city (Badaca) in Pl. 49 of Mr. Layard's *Monuments*, 2nd Series.

[5] Felt was used by the Scythians for their tent-coverings (Herod. iv. 73, 75); as it is by the Calmucks at the present day. It is one of the simplest of manufactures, and would readily take the rounded form, which is so remarkable in the roofs of the Assyrian tents.

Within the fortified enclosure, but outside the tents, were the chariot and horses of the monarch, an altar where sacrifice could be made, and a number of animals suitable for food, as oxen, sheep, and goats.[6]

It appears that occasionally the advance of the troops was along a road.[7] Ordinarily, however, they found no such convenience, but had to press forward through woods and over mountains as they best could. Whatever the obstructions, the chariot of the monarch was in some way or other conveyed across them, though it is difficult to suppose that he could have always remained, as he is represented, seated in it. Probably

King walking in a mountainous country—chariot following supported by men (from an Obelisk in the British Museum).

he occasionally dismounted and made use of one of the led horses, by which he was always accompanied, while sometimes he even condescended to proceed on foot.[8] The use of palanquins or litters seems not to have been known to the Assyrians, though it was undoubtedly very ancient in Asia; but the king

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[6] These are often represented in the bas-reliefs. (See Layard, *Monuments*, 2nd Series, Pls. 24 and 36. Compare the passage from Judith above quoted, p. 464, note [2].)

[7] A road seems to be intended in the bas-relief of which Mr. Layard has given a representation in his *Monuments of Nineveh*, 1st Series, Pl. 81. According to the rendering of Sir H. Rawlinson, Tiglath-Pileser I. calls himself "the opener of the roads of the countries." (*Inscription*, p. 30, § ix.)

[8] The probabilities of the case alone would justify these conclusions, which are further supported by the Inscriptions (*Inscription of Tiglath-Pileser I.* p. 30, § viii.; *Journal of Asiatic Society*, vol. xix. pp. 139, 140, &c.), and by at least one bas-relief (see the above representation).

was sometimes carried on men's shoulders, seated on his throne, in the way that we see the enthroned gods borne in many of the sculptures.[9]

The first object in entering a country was to fight, if possible, a pitched battle with the inhabitants. The Assyrians were always confident of victory in such an encounter, being better armed, better disciplined, and perhaps of stronger frames than any of their neighbours.[10] There is no evidence to show how their armies were drawn up, or how the troops were handled in an engagement; but it would seem that in most cases, after a longer or a shorter resistance, the enemy broke and fled, sometimes throwing away his arms, at other times fighting as he retired, always vigorously pursued both by horse and foot, and sometimes driven headlong into a river.[1] Quarter was not very often given in a battle. The barbarous practice of rewarding those who carried back to camp the heads of foemen prevailed; and this led to the massacre in many cases even of the wounded, the disarmed, and the unresisting, though occasionally quarter was given, more especially to generals and other leading personages whom it was of importance to take alive. Even while the engagement continued, it would seem that soldiers might quit the ranks, decapitate a fallen foe, and carry off his head to the rear, without incurring any reproof;[2] and it is certain that, so soon as the engagement was over, the whole army turned to beheading the fallen, using for this purpose the short sword, which almost every warrior carried at his left side. A few, unable to obtain heads, were forced to be content with gathering the spoils of the slain and of the fled, especially their arms, such as quivers, bows, helmets, and the like; while their more fortunate comrades, proceeding

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[9] Layard, *Monuments*, 1st Series, Pl. 65. Mr. Fox Talbot supposes palanquins to be mentioned more than once in an inscription of Sennacherib (*Journal of Asiatic Society*, vol. xix. pp. 152, 153, 173, &c.); but Sir H. Rawlinson does not allow this translation.

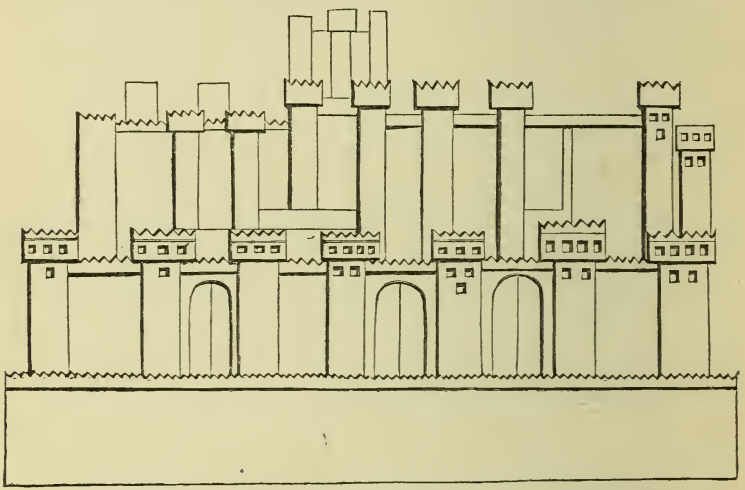
[10] See p. 239.

[1] Layard, *Monuments*, 2nd Series, Pl. 46.

[2] See particularly Layard's *Monuments*, 1st Series, Pl. 70.

to an appointed spot in the rear,[3] exhibited the tokens of their valour, or of their good luck, to the royal scribes, who took an exact account of the amount of the spoil, and of the number of the enemy killed.

When the enemy could no longer resist in the open field, he usually fled to his strongholds. Almost all the nations with whom the Assyrians waged their wars possessed fortified cities, or castles, which seem to have been places constructed with a good deal of skill, and possessed of no inconsiderable strength.

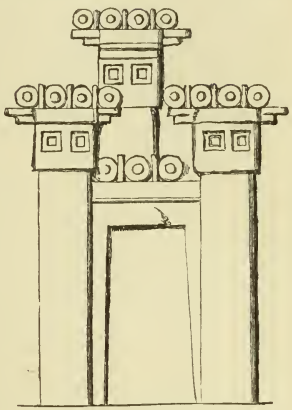


Fortified place, belonging to an enemy of the Assyrians (Nimrud).

According to the representations of the sculptures, they were all nearly similar in character, the defences consisting of high battlemented walls, pierced with loopholes or windows towards their upper part, and flanked at intervals along their whole course by towers. Often they possessed two or more enceintes, which in the bas-reliefs are represented one above the other; and in these cases the outermost circuit was sometimes a mere plain continuous wall, as in the above woodcut. They were entered by large gateways, most commonly arched, and closed

[3] Sometimes a tent was set apart for the purpose, and the heads were piled in one corner of it. (Layard, *Monuments*, 2nd Series, Pl. 45.)

by two huge gates or doors, which completely filled up the aperture. Occasionally, however, the gateways were square-headed, as in the subjoined illustration, where there occurs, moreover, a very curious ornamentation of the battlements.[4]



Gateway of castle (Koyunjik).

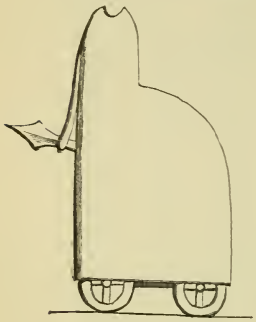
These fortified places the Assyrians attacked in three principal ways. Sometimes they endeavoured to take them by escalade, advancing for this purpose a number of long ladders against different parts of the walls, thus distracting the enemy's attention and seeking to find a weak point. Up the ladders proceeded companies of spearmen and archers in combination, the spearmen invariably taking the lead, since their large shields afforded them a protection, which archers advancing in file up a ladder could not have. Meanwhile from below a constant discharge was kept up by bowmen and slingers, the former of whom were generally protected by the *gerrhon*, or high wicker shield, held in front of them by a comrade. The besieged endeavoured to dislodge and break the ladders, which are often represented in fragments;[5] or, failing in this attempt, sought by hurling down large stones, and by discharges from their bows and slings, to precipitate and destroy their assailants. If finally they were unable by these means to keep the Assyrians from reaching the topmost round of the ladders, they had recourse to their spears, and man to man, spear to spear, and shield to shield, they still struggled to defend themselves. The Assyrians always represent the sieges which they conduct as terminating successfully; but we may be tolerably sure that in many instances the invader

[4] Mr. Layard regards this ornamentation as produced by a suspension from the battlements of the shields of the garrison, and suggests that it illustrates the passage in Ezekiel with respect to Tyre: "The men of Arvad with thine army were upon thy walls round about, and the Gammadims were in thy towers; they *hanged their shields upon thy walls round about*." (*Nineveh and its Remains*, vol. ii. p. 388.)

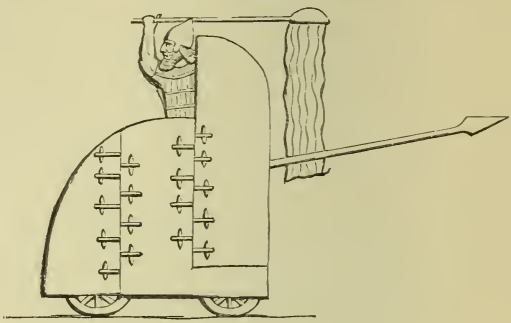
[5] Layard, *Monuments*, 2nd Series, Pl. 21.

was beaten back, and forced to relinquish his prey, or to try fresh methods of obtaining it.

If the escalade failed, or if it was thought unadvisable to attempt it, the plan most commonly adopted was to try the effect of the battering-ram. The Assyrian armies were abun-



No. I.



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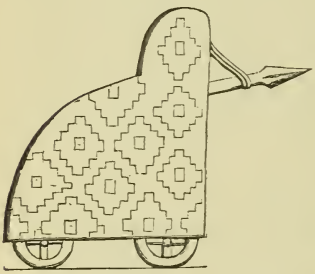

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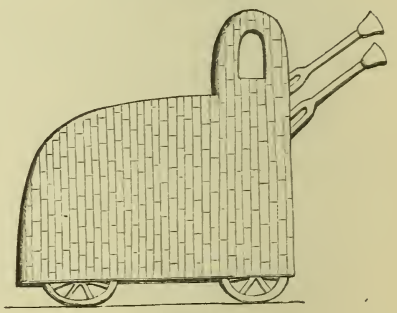

No. IV.

Battering-rams.

dantly supplied with these engines, of which we see as many as seven engaged in a single siege.[6] They were variously designed and arranged. Some had a head shaped like the point of a spear;[7] others, one more resembling the end of a blunderbuss.[8] All of them were covered with a framework, which was of ozier, wood, felt or skins, for the better protection of those who worked the implement; but some appear to have been stationary, having

[6] Layard, *Monuments*, 2nd Series, Pl. 21. [7] As Nos. I., II., and III., above.
[8] As No. IV., above.

their framework resting on the ground itself,[9] while others were moveable, being provided with wheels, which in the early times were six,[10] but in the later times four only. Again, sometimes, combined with the ram and its framework was a moveable tower, containing soldiers, who at once fought the enemy on a level, and protected the engine from their attacks. Fire was the weapon usually turned against the ram, torches, burning tow, or other inflammable substances being cast from the walls upon its framework, which, wherever it was of ozier or of wood, could be easily set alight and consumed. To prevent this result, the workers of the ram were sometimes provided with a supply of water, which they could direct through leathern or metal pipes against the combustibles.[1] At other times they sought to protect themselves by suspending from a pole in front of their engine a curtain of cloth, leather, or some other non-inflammable substance.[2]

Another mode of meeting the attacks of the battering-ram was by catching the point with a chain suspended by its two ends from the walls, and then, when the ram was worked, diverting the stroke, by drawing the head upwards.[3] To oppose this device, the besiegers provided some of their number with strong metal hooks, and stationed them below the ram, where they watched for the descent of the chain. As soon as ever it caught the head of the ram, they inserted their hooks into its links, and then hanging upon it with their whole weight, prevented its interference with the stroke.

Battering-rams were frequently used against the walls from the natural ground at their foot. Sometimes, however, the besiegers raised vast mounds against the ramparts, and advanced

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[9] See Mr. Layard's *Monuments*, 1st Series, Pl. 19.

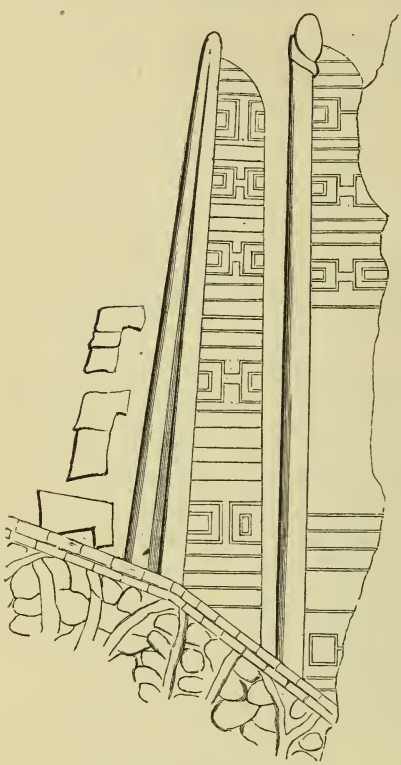
[10] Ibid. Pl. 17.

[1] Ibid. Pl. 19.

[2] In the bas-relief represented by Mr. Layard in his 2nd Series of *Monuments*, Pl. 21, where an enormous number of torches are seen in the air, every battering-ram is thus protected. A man, sheltered under the framework of the ram, holds the pole which supports the curtain. (See the ram, No. II., in the woodcut on the preceding page.) May not the προκαλύμματα of the Platæans have been curtains of this description? They were made of "skins and raw hides" (Thucyd. ii. 75).

[3] Instead of chains, the Greeks used nooses (βρόχοι), made of rope probably, for this purpose. (See Thucyd. ii. 76, where ἀνέκλων seems to mean "drew upwards," and compare Livy, xxxvi. 23, and Dio Cassius, 1080, 11.)

their engines up these, thus bringing them on a level with the upper and weaker portions of the defences. Of this nature probably were the mounds spoken of in Scripture as employed by the Babylonians[4] and Egyptians,[5] as well as the Assyrians,[6] in their sieges of cities. The intention was not so much to pile up the mounds till they were on a level with the top of the walls as to work the battering-ram with greater advantage from them. A similar use was made of mounds by the Peloponnesian Greeks, who nearly succeeded in taking Platæa in this way.[7] The mounds were not always composed entirely of earth; the upper portion was often made of several layers of stone or brick, arranged in regular order, so as to form a sort of paved road, up which the rams might be dragged with no great difficulty. Trees, too, were sometimes cut down and built into the mound.[8]



Assyrian *balistæ* (Nimrud).

Besides battering-rams, the Assyrians appear to have been acquainted with an engine resembling the catapult, or rather the *balista*[9] of the Romans. This engine,

[4] Jer. vi. 6, xxxii. 24, xxxiii. 4, &c.

[5] Ezek. xvii. 17.

[6] 2 Kings xix. 32; Is. xxxvii. 33. The Jews themselves were acquainted with this mode of siege as early as the time of David. (2 Sam. xx. 15.)

[7] Thucyd. ii. 76.

[8] See the above woodcut, and compare Mr. Layard's *Monuments*, 2nd Series, Pl. 18. So Thucydides speaks of the Peloponnesian mound as composed of earth, stones, and wood. (Ἐφόρουν δὲ ὕλην ἐς αὐτὸ καὶ λίθους καὶ γήν. Thucyd. ii. 75.)

[9] The term "catapult" was properly applied to the engine which threw darts; that which threw stones was called *balista*.

which was of great height, and threw stones of a large size, was protected, like the ram, by a framework, apparently of wood, covered with canvas, felt, or hides. The stones thrown from the engine were of irregular shape, and it was able to discharge several at the same time. The besiegers worked it from a mound or inclined plane, which enabled them to send their missiles to the top of the ramparts.[10] It had to be brought very close to the walls in order to be effective—a position which gave the besieged an opportunity of assailing it by fire. Perhaps it was this liability which caused the infrequent use of the engine in question, which is rare upon the earlier, and absent from the later, sculptures.

The third mode of attack employed by the Assyrians in their sieges of fortified places was the mine. While the engines were in full play, and the troops drawn up around the place assailed the defenders of the walls with their slings and bows, warriors singly, or in twos and threes, advanced stealthily to the foot of the ramparts, and either with their swords and the points of their spears, or with implements better suited for the purpose, such as crowbars and pickaxes, attacked the foundations of the walls, endeavouring to remove the stones one by one, and so to force an entrance. While thus employed, the assailant commonly either held his shield above him as a protection, or was guarded by the shield of a comrade;[11] or, finally, if he carried the curved *gerrhon*, leant it against the wall, and then placed himself under its shelter.[12] Sometimes, however, he dispensed with the pro-

Crowbar.

Mining the wall (Koyunjik).

[10] According to Diodorus, *balistæ* were chiefly used to break down the battlements which crowned the walls and the towers. (Diod. Sic. xvii. 42, 45; xx. 48, 88.)

[11] Layard, *Monuments of Nineveh*, 1st Series, Pl. 66.

[12] See the woodcut, supra, p. 446.

tection of a shield altogether, and, trusting to his helmet and coat of mail, which covered him at all vital points, pursued his labour without paying any attention to the weapons aimed at him by the enemy.[13]

Occasionally the efforts of the besiegers were directed against the gates, which they endeavoured to break open with axes, or to set on fire by an application of the torch. From this latter circumstance we may gather that the gates were ordinarily of wood, not, like those of Babylon[14] and Veii,[15] of brass. In the hot climate of Southern Asia wood becomes so dry by exposure to the sun that the most solid doors may readily be ignited and consumed.[1]

Implement used in the destruction of cities (Khorsabad).

When at last the city or castle was by some of these means reduced, and the garrison consented to surrender itself, the work of demolition, already begun, was completed. Generally the place was set on fire; sometimes workmen provided with pickaxes and other tools mounted upon the ramparts and towers, hurled down the battlements, broke breaches in the walls, or even levelled the whole building. Vengeance was further taken by the destruction of the valuable trees in the vicinity, more especially the highly prized date-palms, which were cut with hatchets half through their stems at the distance of about two feet from the ground, and then pulled or pushed down. Other trees were either treated similarly, or denuded of their branches.[2] Occasionally the destruction was of a less wanton and vengeful character. Timber-trees were cut down for transport to Assyria, where they were used in the construc-

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[13] Layard, *Monuments*, 1st Series, Pl. 19.

[14] Herod. i. 179; Diod. Sic. ii. 8, § 7.

[15] Plutarch, *Vit. Camill.* 12.

[1] In the Affghan war one of the gates of the city of Candahar was ignited from the outside by the Affghanees, and was entirely consumed in less than an hour.

[2] See Mr. Layard's *Monuments*, 2nd Series, Pl. 40.

tion of the royal palaces;[3] and fruit-trees were occasionally taken up by the roots, removed carefully, and planted in the gardens and orchards of the conquerors.[4] Meanwhile there was a general plundering of the captured place. The temples were entered, and the images of the gods, together with the sacred vessels, which were often of gold and silver,[5] were seized and carried off in triumph.[6] This was not mere cupidity. It was regarded as of the utmost importance to show that the gods of the Assyrians were superior to those of other countries, who were powerless to protect either their votaries or even themselves from the irresistible might of the servants of Asshur. The ordinary practice was to convey the images of the foreign gods from the temples of the captured places to Assyria, and there to offer them at the shrines of the principal Assyrian deities.[7] Hence the special force of the proud question—"*Where are* the gods of Hamath and of Arpad? *Where are* the gods of Sepharvaim, Hena, and Ivah?"[8] Where are they but carried captive to Assyria, prisoners and slaves in the temples of those deities whose power they ventured to resist?

Soldiers destroying date-palms (Koyunjik).

Soldier carrying off spoil from a temple (Khorsabad).

[3] Fox Talbot, *Assyrian Texts*, pp. 8, 17, &c.

[4] So at least Sir Henry Rawlinson understands a passage in the Tiglath-Pileser Inscription, col. vii. ll. 17-27, pp. 58-60.

[5] *Inscription of Tiglath-Pileser I.* p. 28.

[6] Layard, *Monuments*, 1st Series, Pl. 65; 2nd Series, Pl. 30, &c.

[7] *Inscription of Tiglath-Pileser I.* p. 40; *Assyrian Texts*, p. 17.

[8] 2 Kings xviii. 34.

The houses of the city were also commonly plundered, and everything of value in them was carried off. Long files of men, each bearing some article of furniture out of the gate of a captured town, are frequent upon the bas-reliefs, where we likewise often observe in the train of a returning army carts laden with household stuff of every kind, alternating with long strings of captives. All the spoil seems to have been first brought by the individual plunderers to one place, where it was carefully sorted and counted in the presence and under the superintendence of royal scribes, who took an exact inventory of the whole before it was carried away by its captors. Scales were used to determine the weight of articles made of the precious metals,[9] which might otherwise have been subjected to clipping. We may conclude from these practices that a certain proportion of the value of all private spoil was either due to the royal treasury, or required to be paid to the gods in acknowledgement of their aid and protection. Besides the private spoil, there was a portion which was from the first set apart exclusively for the monarch. This consisted especially of the public treasure of the captured city, the gold and silver, whether in bullion, plate, or ornaments, from the palace of its prince, and the idols, and probably the other valuables, from the temples.

Scribes taking account of the spoil (Khorsabad).

The inhabitants of a captured place were usually treated with more or less of severity. Those regarded as most responsible for the resistance or the rebellion were seized; generally their hands were manacled either before them or behind their backs, while sometimes fetters were attached to their feet,[1] and even

[9] See Mr. Layard's *Nineveh and its Remains*, vol. ii. p. 377, and compare a representation on the broken black obelisk of Asshur-izir-pal, now in the British Museum.

[1] See Mr. Layard's *Nineveh and its Remains*, vol. ii. p. 376.

rings passed through their lips,[2] and in this abject guise they were brought into the presence of the Assyrian king. Seated on his throne in his fortified camp without the place, and surrounded by his attendants, he received them one by one, and instantly pronounced their doom. On some he proudly placed his foot,[3] some he pardoned, a few he ordered for execution, many he sentenced to be torn from their homes and carried into slavery.

Various modes of execution seem to have been employed in the case of condemned captives. One of them was impalement. This has always been, and still remains, a common mode of punishment in the East; but the manner of impaling which the Assyrians adopted was peculiar. They pointed a stake at one end, and, having fixed the other end firmly into the ground, placed their criminal with the pit of his stomach upon the point, and made it enter his body just below the breastbone.[4] This method of impaling must have destroyed life tolerably soon, and have thus been a far less cruel punishment than the crucifixion of the Romans. We do not observe it very often in the Assyrian sculptures, nor do we ever see it applied to more than a few individuals.[5] It was probably reserved for those who were considered the worst criminals.[6]

Mace-bearer, with attendant, executing a prisoner (Koyunjik).

Another very common mode of executing captives was by beating in their skulls with a mace. In this case the victim commonly knelt; his two hands were placed before him upon a block or cushion; behind him stood two executioners, one of

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[2] See p. 243, where a representation of captives thus treated is given.

[3] For a representation of this practice see Mr. Layard's *Monuments*, 1st Series, Pl. 82. The Persian monarchs treated captives in the same way, as we see by the rock sculpture at Behistun. The practice has always prevailed in the East. See Josh. x. 24; Ps. viii. 6; cx. 1; Lament. iii. 34, &c.

[4] For a representation, see p. 242.

[5] One king, the great Asshur-izir-pal, seems to have employed impalement on a large scale. (See his long Inscription, *British Museum Series*, Pls. 17 to 26.)

[6] *Assyrian Texts*, p. 28.

whom held him by a cord round his neck, while the other, seizing his back hair in one hand, struck him a furious blow upon the head with a mace which he held in the other.[7] It must have been rarely, if ever, that a second blow was needed.

Decapitation was less frequently practised. The expression indeed, "I cut off their heads," is common in the Inscriptions;[8] but in most instances it evidently refers to the practice, already noticed,[9] of collecting the heads of those who had fallen in battle. Still there are instances, both in the Inscriptions[1] and in the sculptures,[2] of what appears to have been a formal execution of captives by beheading. In these cases the criminal, it would seem, stood upright, or bending a little forwards, and, the executioner, taking him by a lock of hair with his left hand, struck his head from his shoulders with a short sword, which he held in his right.

Swordsman decapitating a prisoner (Koyunjik).

It is uncertain whether a punishment even more barbarous than these was not occasionally resorted to. In two or three bas-reliefs executioners are represented in the act of flaying prisoners with a knife. The bodies are extended upon the ground or against a wall, to which they are fastened by means of four pegs attached by strings or thongs to the two wrists and the two ankles. The executioner leans over the victim, and with his knife detaches the skin from the flesh.[3] One would trust that this operation was not performed until life was

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[7] Another mode of executing with the mace is represented in Mr. Layard's *Nineveh and Babylon*, p. 458.

[8] See the *Inscription of Tiglath-Pileser I.* pp. 24 and 50; *Assyrian Texts*, pp. 11, 30, &c.

[9] Supra, p. 467.

[1] *Assyrian Texts*, l. s. c.

[2] See particularly the slab in the British Museum, entitled "Execution of the King of Susiana."

[3] For a representation see Mr. Layard's *Nineveh and Babylon*, p. 457.

extinct. We know that it was the practice of the Persians,[4] and even of the barbarous Scythians,[5] to flay the corpses, and not the living forms, of criminals and of enemies; we may hope, therefore, that the Assyrians removed the skin from the dead, to use it as a trophy or as a warning,[6] and did not inflict so cruel a torture on the living.

Sometimes the punishment awarded to a prisoner was mutilation instead of death. Cutting off the ears close to the head, blinding the eyes with burning-irons, cutting off the nose, and plucking out the tongue by the roots, have been in all ages favourite Oriental punishments.[7] We have distinct evidence that some at least of these cruelties were practised by the Assyrians. Asshur-izir-pal tells us in his great Inscription that he often cut off the noses and the ears of prisoners; while a slab of Asshur-bani-pal, the son of Esarhaddon, shows a captive in the hands of the torturers, one of whom holds his head firm and fast, while another thrusts his hand into his mouth for the purpose of tearing out the tongue.[8]

The captives carried away by the conquerors consisted of men, women, and children. The men were formed into bands, under the conduct of officers, who urged them forward on their way by blows, with small regard to their sufferings. Commonly they were conveyed to the capital, where they were employed by the monarchs in the lower or higher departments of labour, according to their capacities. The skilled workmen were in request to assist in the ornamentation of shrines and palaces, while the great mass of the unskilled were made use of to quarry and drag stone, to raise mounds, make bricks, and the

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[4] Herod. v. 25: Σισάμνην βασιλεὺς Καμβύσης, σφάξας ἀπέδειρε πᾶσαν τὴν ἀνθρωπηΐην. And again, a little further on: τὸν ἀποκτείνας ἀπέδειρε, "flayed after he had slain."

[5] Herod. iv. 64: Πολλοὶ δὲ ἀνδρῶν ἐχθρῶν τὰς δεξίας χέρας νεκρῶν ἐόντων ἀποδειράντες, αὐτοῖσι ὄνυξι καλύπτρας τῶν φαρετρέων ποιεῦνται.

[6] The Scythians used the skins of their enemies as trophies. When Cambyses had Sisamnes flayed, it was to cover with his skin the seat of justice, on which his son had succeeded him, and so to deter the son from imitating the corruption of his father.

[7] See Herod. iii. 69, 154; vii. 18; Xen. *Anab.* i. 9, § 13; Amm. Marc. xxvii. 12; Procop. *De Bell. Pers.* i. 11; Jerem. xxxix. 7, &c.; and compare Brisson, *De Regn. Pers.* ii. pp. 334, 335.

[8] The whole slab is engraved by Mr. Layard in his *Monuments*, 2nd Series, Pl. 47. A portion of it is also given in his *Nineveh and Babylon*, p. 458.

like.[9] Sometimes, instead of being thus employed in task-work in or near the capital, the captives were simply settled in new regions, where it was thought that they would maintain the Assyrian power against native malcontents.[10] Thus Esarhaddon planted Babylonians, Susanchites, Dehavites, Elamites, and others in Samaria,[11] while Sargon settled his Samaritan captives in Gauzanitis and in "the cities of the Medes."[12]

The women and children carried off by the conquerors were treated with more tenderness than the men. Sometimes on foot,

Female captives, with children (Koyunjik).

but often mounted on mules,[13] or seated in carts drawn by bullocks or asses,[14] they followed in the train of their new masters, not always perhaps unwilling to exchange the monotony of domestic life at home for the excitement of a new and unknown condition in a fresh country. We seldom see them exhibiting any signs of grief. The women and children are together, and the mothers lavish on their little ones the usual caresses and kind offices, taking them in their laps, giving them the breast, carrying them upon their shoulders, or else leading them by the hand. At intervals they were allowed to stop and rest; and it was not even the practice to deprive them of such portion of their household stuff as they might have contrived to secure

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[9] See *Tiglath-Pileser Inscription*, col. vi. l. 85; *Assyrian Texts*, pp. 2, 7, &c.
[10] Ibid. p. 4.
[11] Ezra, iv. 2 and 9.
[12] 2 Kings, xviii. 11.
[13] See p. 233.
[14] See pp. 234 and 243.

before quitting their homes. This they commonly bore in a bag or sack which was either held in the hand or thrown over one shoulder. When they reached Assyria, it would seem that they were commonly assigned as wives to the soldiers of the Assyrian army.[15]

Together with their captives the Assyrians carried off vast quantities of the domesticated animals, such as oxen, sheep, goats, horses, asses, camels, and mules. The numbers mentioned in the Inscriptions are sometimes almost incredible. Sennacherib, for instance, says that in one foray he bore off from the tribes on the Euphrates "7200 horses and mares, 5230 camels, 11,000 mules, 120,000 oxen, and 800,000 sheep"![1] Other kings omit particulars, but speak of the captured animals which they led away as being "too numerous to be counted," or "countless as the stars of heaven."[2] The Assyrian sculptors are limited by the nature of their art to comparatively small numbers, but they show us horses, camels, and mules, in the train of a returning army,[3] together with groups of the other animals,[4] indicative of the vast flocks and herds continually mentioned in the Inscriptions.

Occasionally the monarchs were not content with bringing home domesticated animals only, but took the trouble to transport from distant regions into Assyria wild beasts of various kinds. Tiglath-Pileser I. informs us in general terms that, besides carrying off the droves of the horses, cattle, and asses that he obtained from the subjugated countries, he "took away and drove off the herds of the wild goats and the ibexes, the wild sheep and the wild cattle;"[5] and another monarch mentions that in one expedition he carried off from the middle Euphrates a drove of forty wild cattle, and also a flock of twenty ostriches.[6] The object seems to have been to stock Assyria with a variety and an abundance of animals of chace.

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[15] *Assyrian Texts*, p. 19 and note.

[1] See the author's *Herodotus*, vol. i. p. 493, note [1].

[2] *Assyrian Texts*, p. 11; *Tiglath-Pileser Inscription*, p. 44, &c.

[3] Layard, *Monuments*, 1st Series, Pls. 61, 74, 75; 2nd Series, Pls. 33, 34, &c.

[4] For representations of such groups, see pp. 351, 352.

[5] *Inscription*, p. 58.

[6] *Assyrian Texts*, p. 25.

The foes of the Assyrians would sometimes, when hard pressed, desert the dry land, and betake themselves to the marshes, or cross the sea to islands where they trusted that they might be secure from attack. Not unfrequently they obtained their object by such a retreat, for the Assyrians were not a maritime people. Sometimes, however, they were pursued. The Assyrians would penetrate into the marshes by means of reed boats, probably not very different from the *terradas* at present in use among the Arabs of the Mesopotamian marsh districts.[7] Such boats are represented upon the bas-reliefs as capable of holding from three to five armed men.[8] On these the Assyrian foot-soldiers would embark, taking with them a single boatman to each boat, who propelled the vessel much as a Venetian gondolier propels his gondola, *i. e.*, with a single long oar or paddle, which he pushed from him standing at the stern. They would then in these boats attack the vessels of the enemy, which are always represented as smaller than theirs, run them down or board them, kill their crews or force them into the water, or perhaps allow them to surrender. Meanwhile the Assyrian cavalry was stationed round the marsh among the tall reeds which thickly clothed its edge, ready to seize or slay such of the fugitives as might escape from the foot.

When the refuge sought was an island, if it lay near the shore, the Assyrians would sometimes employ the natives of the adjacent coast to transport beams of wood and other materials by means of their boats, in order to form a sort of bridge or mole reaching from the mainland to the isle whereto their foes had fled.[9] Such a design was entertained, or at least professed, by Xerxes after the destruction of his fleet in the battle of Salamis,[10] and it was successfully executed by Alexander the Great, who took in this way the new or island Tyre.[11] From a

[7] For a description of these *terradas*, see Mr. Layard's *Nineveh and Babylon*, p. 552, and compare Loftus, *Chaldæa and Susiana*, p. 92. The larger *terradas* are of teak, but the smaller "consist of a very narrow framework of rushes covered with bitumen." These last seem to be the exact counterpart of the boats represented in the sculptures. (See Mr. Layard's *Monuments*, 2nd Series, Pls. 25, 27, and 28.)

[8] Layard, ibid. l. s. c.

[9] Botta, *Monument de Ninive*, vol. i. Pls. 31 to 35.

[10] Herod. viii. p. 97; Ctes. *Exc. Pers.* § 26; Strab. ix. 1, § 13.

[11] Arrian, *Exp. Alex.* ii. 1.

series of reliefs discovered at Khorsabad we may conclude that more than two hundred years before the earlier of these two occasions, the Assyrians had conceived the idea and even succeeded in carrying out the plan,[12] of reducing islands near the coast by moles.

Unlike the Chaldæans, whose "cry was in their ships,"[13] the Assyrians seem very rarely to have adventured themselves upon the deep. If their enemies fled to islands which could not be reached by moles, or to lands across the sea, in almost every instance they escaped. Such escapes are represented upon the sculptures,[14] where we see the Assyrians taking a maritime town at one end, while at the other the natives are embarking their women and children, and putting to sea, without any pursuit being made after them. In none of the bas-reliefs do we observe any seagoing vessels with Assyrians on board; and history tells us of but two or three expeditions by sea in which they took part. One of these was an expedition by Sennacherib against the coasts of the Persian Gulf, to which his Chaldæan enemies had fled. On this occasion he brought shipwrights from Phœnicia to Assyria, and made them build him ships there, which were then launched upon the Tigris, and conveyed down to the sea. With a fleet thus constructed, and probably manned, by Phœnicians, Sennacherib crossed to the opposite coast, defeated the refugees, and, embarking his prisoners on board, returned in triumph to the mainland.[15] Another expedition was that of Shalmaneser IV. against the island Tyre.[16] Assyrians are said to have been personally engaged in it; but here again we are told that they embarked in ships furnished to them by the Phœnicians, and manned chiefly by Phœnician sailors.

[12] Unless they had been successful, they would not, we may be sure, have made the construction of the mole the subject of a set of bas-reliefs.

[13] Isaiah xliii. 14.

[14] See the description in Mr. Layard's *Monuments*, 1st Series, p. 16, and compare *Nineveh and its Remains*, vol. ii. p. 384.

[15] *Journal of the Asiatic Society*, vol. xix. p. 154.

[16] Menander ap. Joseph. *Ant. Jud.* ix. 14, § 2. It has been thought that Sargon attacked Cyprus. (Oppert, *Inscriptions des Sargonides*, p. 19.) But his monument found at Idalium does not prove that he carried his arms there. By the inscription it appears that the tablet was carved *at Babylon*, and conveyed thence to Cyprus by Cyprian envoys.

When a country was regarded as subjugated, the Assyrian monarch commonly marked the establishment of his sovereignty by erecting a memorial in some conspicuous or important situation within the territory conquered, as an enduring sign of his having taken possession. These memorials were either engraved on the natural rock or on solid blocks of stone cut into the form of a broad low *stele*. They contained a figure of the king, usually enclosed in an arched frame, and an inscription of greater or less length, setting forth his name, his titles, and some of his exploits. More than thirty such memorials are mentioned in the extant Inscriptions, and the researches of recent times have recovered some ten or twelve of them.[1] They uniformly represent the king in his sacerdotal robes, with the sacred collar round his neck, and the emblems of the gods above his head, raising the right hand in the act of adoration, as if he were giving thanks to Asshur and his guardian deities on account of his successes.

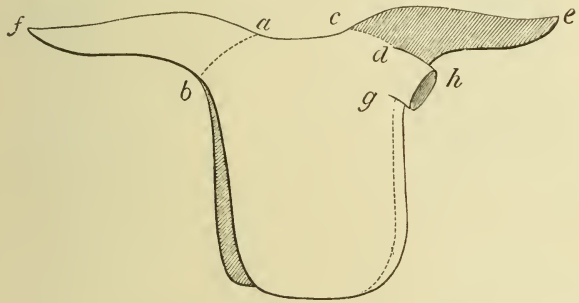
It is now time to pass from the military customs of the Assyrians to a consideration of their habits and usages in time of peace, so far as they are made known to us either by historical records or by the pictorial evidence of the bas-reliefs. And here it may be convenient to treat separately of the public life of the king and court, and of the private life of the people.

In Assyria, as in most Oriental countries, the key-stone of the social arch, the central point of the system, round which all else revolved, and on which all else depended, was the monarch. "L'état, c'est moi" might have been said with more truth by an Assyrian prince than even by the "Grand Monarque" whose *dictum* it is reported to have been. Alike in the historical

[1] To this class belong the rock sculptures, five or six in number, at the Nahr-el-Kelb. There is another of the same character at Bavian, a third at Egil, on the main Tigris stream above Diarbekr, and there are two others at the sources of the eastern Tigris, or river of Supnat. Two block memorials have been found at Kurkh, 20 miles below Diarbekr, recording the exploits of Asshur-izir-pal, and his son, Shalmaneser II. They were discovered by Mr. John Taylor in 1862, and are now in the British Museum. The Egil and Supnat tablets were also discovered by Mr. Taylor.

notices, and in the sculptures, we have the person of the king presented to us with consistent prominence, and it is consequently with him that we most naturally commence the present portion of our inquiry.

The ordinary dress of the monarch in time of peace was a long flowing robe, reaching to the ankles, elaborately patterned and fringed, over which was worn, first, a broad belt, and then a species of open mantle, or chasuble, very curiously contrived. This consisted mainly of two large flaps, both of which were commonly rounded, though sometimes one of them was square at bottom.[2] These fell over the robe in front and behind, leaving the sides open, and so exposing the under dress to view. The two flaps must have been sewn together at the



Chasuble, or outer garment of the king.

places marked with the dotted lines *a b* and *c d*,[3] the space from *a* to *c* being left open, and the mantle passed by that means over the head. At *d g* there was commonly a short sleeve (*h*), which covered the upper part of the left arm, but the right arm was left free, the mantle falling on either side of it. Sometimes, besides the flaps, the mantle seems to have had two pointed wings attached to the shoulders (*a f b* and *c e h* in the woodcut), which were made to fall over in front. Occasionally there was worn above the chasuble a broad diagonal

[2] Layard, *Monuments*, 1st Series, Pl. 34. The squared flap is always that which is worn behind.

[3] The account and the representation of this complicated garment are taken mainly from the work of M. Botta (*Monument de Ninive*, vol. v. p. 84). But the author has slightly modified both M. Botta's theory and his illustration.

belt, ornamented with a deep fringe, and sometimes there depended at the back of the dress a species of large hood.[4]

King in his robes.

The special royal head-dress was a tall mitre or tiara, which at first took the shape of the head, but rose above it to a certain height in a gracefully curved line, when it was covered in with a top, flat, like that of a hat, but having a projection towards the centre, which rose up into a sort of apex or peak, not however pointed, but either rounded or squared off. The tiara was generally ornamented with a succession of bands, between which were commonly patterns more or less elaborate. Ordinarily the lowest band, instead of running parallel with the others, rose with a gentle curve towards the front, allowing room for a large rosette over the forehead, and for other similar ornaments. If we may trust the representations on the enamelled bricks, supported as they are to some extent by the tinted reliefs, we may say that the tiara was of three colours, red, yellow, and white.[5] The red and white alternated in broad bands; the ornaments upon them were yellow, being probably either embroidered on the material of the head-dress in threads of gold, or composed of thin gold plates which may have been sewn on. The general material of the tiara is likely to have been cloth or felt; it can scarcely have been metal, if the deep crimson tint of the bricks and the reliefs is true.

In the early sculptures the tiara is more depressed than in the later, and it is also less richly ornamented. It has seldom more than two bands, viz. a narrow one at top, and at bottom a

[4] See Mr. Layard's *Nineveh and its Remains*, vol. ii. opp. p. 7.
[5] See Botta's *Monument*, vol. i. Pl. 12, and vol. ii. Pl. 155.

broader curved one, rising towards the front. To this last are attached two long strings or lappets, which fall behind the monarch's back to a level with his elbow.

Tiara of the later period (Koyunjik).

Tiara of the earlier period (Nimrud).

Another head-dress which the monarch sometimes wore was a sort of band or fillet. This was either elevated in front and ornamented with a single rosette, like the lowest band of the tiara, or else of uniform width and patterned along its whole course.[6] In either case there depended from it, on each side of the back hair, a long riband or streamer, fringed at the end, and sometimes ornamented with a delicate pattern.

Fillet worn by the king (Nimrud).

The monarch's feet were protected by sandals or shoes. In the early sculptures sandals only appear in use, shoes being unknown[1] (as it would seem) until the time of Sennacherib.

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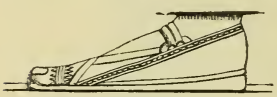
[6] See the woodcut on p. 507.

[1] Shoes were not absolutely unknown to the Assyrians, even in the earliest period, since they are represented on the feet of foreign tribute-bearers as early as the Black-Obelisk king. Boots are also represented in this monarch's sculptures. But *Assyrians* wear neither till the reign of Sennacherib.

The sandals worn were of two kinds. The simplest sort had a very thin sole and a small cap for the heel, made apparently of a number of strips of leather[2] sewn together. It was held in place by a loop over the great toe, attached to the fore part of the sole, and by a string which was laced backwards and forwards across the instep, and then tied in a bow.

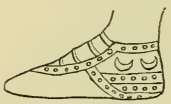
Royal sandal (time of Sargon).

The other kind of sandal had a very different sort of sole; it was of considerable thickness, especially at the heel, from which it gradually tapered to the toe. Attached to this was an upper leather which protected the heel and the whole of the side of the foot, but left the toes and the instep exposed. A loop fastened to the sole[3] received the great toe, and at the point where the loop was inserted two straps were also made fast, which were then carried on either side the great toe to the top of the foot, where they crossed each other, and, passing twice through rings attached to the edge of the upper leather, were finally fastened, probably by a buckle, at the top of the instep.



Royal sandal (time of Asshur-izir-pal).

The shoe worn by the later kings was of a coarse and clumsy make, very much rounded at the toe, patterned with rosettes, crescents, and the like, and (apparently) laced in front. In this respect it differed from the shoe of the queen, which will be represented presently,[4] and also from the shoes worn by the tribute-bearers.



Royal shoe (time of Sennacherib).

The accessory portions of the royal costume were chiefly belts, necklaces, armlets, bracelets, and ear-rings. Besides the

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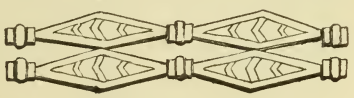
[2] At Khorsabad these strips were sometimes coloured alternately red and blue. More often the entire sandal had a reddish tint. M. Botta observes that a sandal shaped exactly like this is worn to the present day in the Mount Sinjar, and in other parts of Mesopotamia. (*Monument*, vol. v. p. 85.)

[3] This loop has been regarded as a mere twist of the strap round the great toe; but I find it sometimes clearly represented as springing from the sole. Thus only would it add much to the hold of the foot on the sandal.

[4] Infra, p. 493.

belt round the waist, in which two or three highly ornamented daggers were frequently thrust, and the broad fringed cross-belt, of which mention was made above,[5] the Assyrian monarch wore a narrow cross-belt passing across his right shoulder, from which his sword hung at his left side. This belt was sometimes patterned with rosettes. It was worn over the front flap of the chasuble, but under the back flap, and was crossed at right angles by the broad fringed belt, which was passed over the right arm and head so as to fall across the left shoulder.

The royal necklaces were of two kinds. Some consisted merely of one or more strings of long lozenge-shaped beads slightly chased and connected by small links, ribbed perpendicularly. The other kind was a band or collar, perhaps of gold, on which were hung a number of sacred emblems: as the crescent or emblem of the Moon-God, Sin; the four-rayed disk, the emblem of the Sun-God, Shamas; the six-rayed or eight-rayed disk, the emblem of Gula, the Sun-Goddess; the horned cap, perhaps the emblem of the king's guardian genius; and the double or triple bolt, which was the emblem of Vul, the god of the atmosphere. This sacred collar was a part of the king's civil and not merely of his sacerdotal dress; as appears from the fact that it was sometimes worn when the king was merely receiving prisoners.[6]



Royal necklace (Nimrud).

Royal collar (Nimrud).

The monarch wore a variety of armlets. The most common was a plain bar of a single twist, the ends of which slightly overlapped each other. A more elegant kind was similar to this, except that the bar terminated in animal heads carefully wrought, among which the heads of rams, horses, and ducks were the most common. A third sort has the appearance of being composed of a number of long strings or wires, confined at inter-

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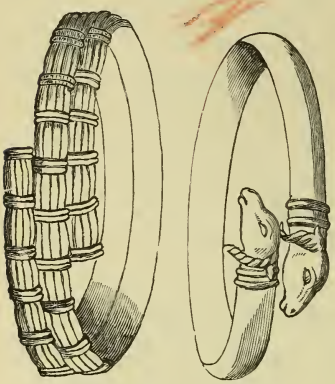
[5] See p. 485.

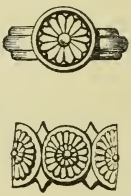
[6] See Mr. Layard, *Monuments*, 1st Series, Pl. 82.

vals of less than an inch by cross bands at right angles to the wires. This sort was carried round the arm twice, and even then its ends overlapped considerably. It is probable that all the armlets were of metal, and that the appearance of the last was given to it by the workman in imitation of an earlier and ruder armlet of worsted or leather.

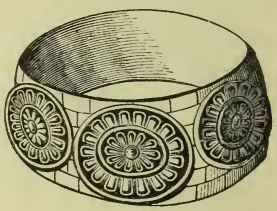


Royal armlets (Khorsabad).

The bracelets of the king, like his armlets, were sometimes mere bars of metal, quite plain and without ornament. More often, however, they were ribbed and adorned with a large rosette at the centre. Sometimes, instead of one simple rosette, we see three double rosettes, between which project small points,



Royal bracelets (Khorsabad and Koyunjik).



Royal bracelet (Khorsabad).

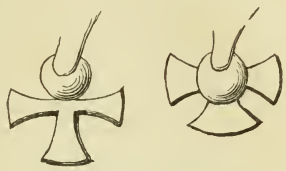
shaped like the head of a spear. Occasionally these double rosettes appear to be set on the surface of a broad bar, which is chased so as to represent brickwork. In no case can we see how the bracelets were fastened; perhaps they were elastic and were slipped over the hand.[7]

Specimens of royal ear-rings have been already given in an earlier chapter of this volume.[8] The most ordinary form in the more ancient times was a long drop, which was sometimes deli-

[7] Roman bracelets were sometimes fastened with catches. (See *Dictionary of Antiquities*, p. 136, 2nd ed.) But more often they were left open, like the Assyrian armlets, and merely clung to the arm.

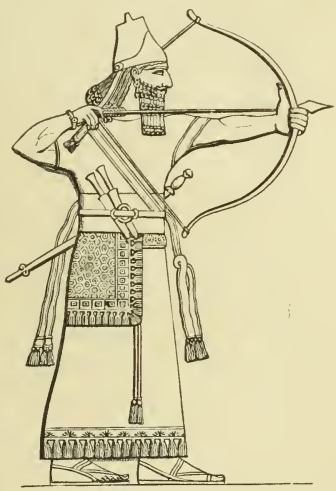
[8] P. 371.

cately chased.[9] Another common kind was an incomplete Maltese cross, one arm of the four being left out because it would have interfered with the ear. In later times there was a good deal of variety in the details; but the drop and the cross were always favourite features.



Royal ear-rings (Nimrud).

When the monarch went out to the hunt or to the battle, he laid aside such ornaments as encumbered him, reserving however his ear-rings, bracelets, and armlets, and then, stripping off his upper dress or chasuble, appeared in the under robe which has been already described.[10] This robe was confined at the waist by a broad cincture or girdle, outside of which was worn a narrowish belt wherein daggers were often thrust. In early times this cincture seems to have been fastened by a riband with long streaming ends, which are very conspicuous in the Nimrud sculptures. At the same period the monarch often wore, when he hunted or went out to battle, a garment which might have been called an apron, if it had not been worn behind instead of in front. This was generally patterned and fringed very richly, besides being ornamented with one or more long pendant tassels.



Early king in his war-costume (Nimrud).

The sacerdotal dress of the king, or that which he commonly wore when engaged in the rites of his religion, differed considerably from his ordinary costume. His inner garment, indeed, seems to have been the usual long gown with a fringe descend-

[9] See the woodcut nearest the top of p. 371.

[10] Supra, p. 485. This change of dress is almost universal in the earliest and in the latest sculptures. In the intermediate period, however, the time of Sargon and Sennacherib, the monarch goes out to war in his chasuble.

ing to the ankles; but this was almost entirely concealed under an ample outer robe, which was closely wrapped round the form and kept in place by a girdle. A deep fringe, arranged in two rows, one above the other, and carried round the robe in curved sweeps at an angle with the horizontal line, is the most striking feature of this dress, which is also remarkable for the manner in which it confines and conceals the left arm, while the right is left free and exposed to view. A representation of a king thus apparelled will be found in an earlier part of this work,[1] taken from a statue now in the British Museum. It is peculiar in having the head uncovered, and in the form of the implement borne in the right hand. It is also incomplete as a representation, from the fact that all the front of the breast is occupied by an inscription. Other examples[2] show that the tiara was commonly worn as a part of the sacerdotal costume; that the sacred collar[3] adorned the breast, necklaces the neck, and bracelets the two arms; while in the belt, which was generally to some extent knotted, were borne two or three daggers. The mace seems to have been a necessary appendage to the costume, and was always grasped just below its head by the left hand.

We have but one representation of an Assyrian queen. Despite the well-known stories of Semiramis and her manifold exploits, it would seem that the Assyrians secluded their females with as rigid and watchful a jealousy as modern Turks or Persians. The care taken with respect to the direction of the passages in the royal *hareem* has been noticed already.[4] It is quite in accordance with the spirit thus indicated, and with the general tenor of Oriental habits, that neither in inscriptions[5] nor in sculptured representations do the Assyrians allow their women to make more than a most rare and

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[1] See p. 340.

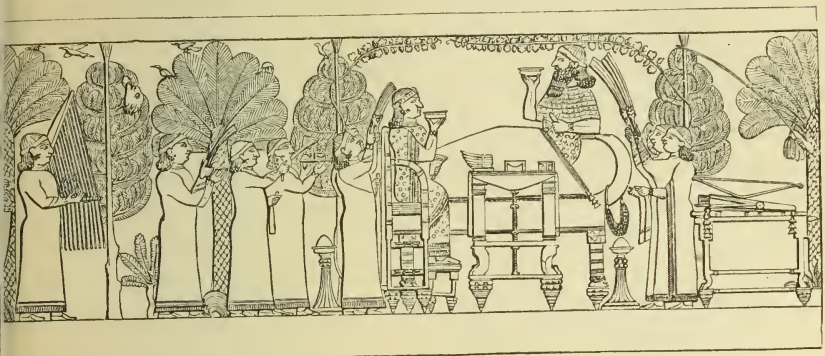
[2] Particularly the slab engraved by Mr. Layard in his *Monuments*, 1st Series, Pl. 25, with which compare the figure in an arched frame represented in the same author's *Nineveh and Babylon*, opp. p. 351.

[3] For a representation of the sacred collar, see above, p. 489.

[4] See p. 297.

[5] Mention of an Assyrian woman has been found as yet in only two inscriptions, one being that on the duplicate statues of Nebo now in the British Museum, and the other being a tablet-inscription belonging to the reign of the last known king.

occasional appearance. Fortunately for us, their jealousy was sometimes relaxed to a certain extent; and in one scene, recovered from the *débris* of an Assyrian palace,[6] we are enabled to contemplate at once the domestic life of the monarch and the attire and even the features of his consort.



King, queen, and attendants (Koyunjik).

It appears that in the private apartments, while the king, like the Romans and the modern Orientals, reclined upon a couch, leaning his weight partly upon his left elbow,[7] and having his right arm free and disposable, her majesty the queen sat in a chair of state by the couch's side, near its foot and facing her lord. Two eunuchs provided with large fans were in attendance upon the monarch, and the same number waited upon the queen, standing behind her chair. Her majesty, whose hair was arranged nearly like that of her royal consort, wore upon her head a band or fillet having something of the appearance of a crown of towers, such as encircles the brow of Cybele on Greek coins and statues. Her dress was a long-sleeved gown reaching from the neck to the feet, flounced and trimmed at

[6] The scene is from the palace of Esar-haddon's son (Asshur-bani-pal) at Koyunjik. It is now in the National Collection.

[7] Horat. Od. I. xxviii. 8—"Et *cubito* remanete *presso*." See also Sat. I. iv. 39. The Roman fashion has been thus described (and the description would evidently suit the Assyrians just as well)—"They lay with the upper part of the body resting on the left arm, the head a little raised, the back supported by cushions, and the limbs stretched out at full length, or a little bent." (Lipsius, *Antiq. Lect.* iii.)

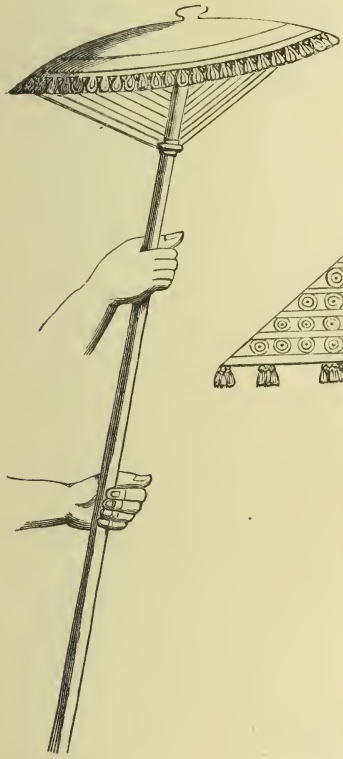
the bottom in an elaborate way, and elsewhere patterned with rosettes, over which she wore a fringed tunic or frock descending half-way between the knees and the feet. In addition to these two garments, she wore upon her back and shoulders a light cloak or cape, patterned (like the rest of her dress) with rosettes and edged with a deep fringe. Her feet were encased in shoes of a clumsy make, also patterned. Her ornaments, besides the crown upon her head, were ear-rings, a necklace, and bracelets. Her chair was cushioned, and adorned with a drapery which hung over the back. Her feet rested on a handsome footstool, also cushioned.

Enlarged figure of the queen (Koyunjik).

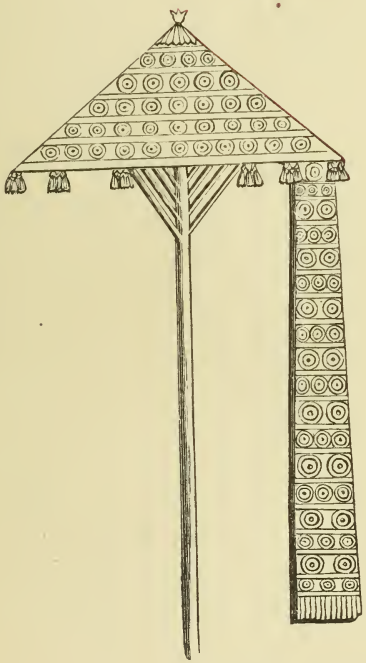
On the slab from which this description is taken the royal pair seem to be refreshing themselves with wine. Each supports on the thumb and fingers of the right hand a saucer or shallow drinking-cup, probably of some precious metal, which they raise to their lips simultaneously, as if they were pledging one another. The scene of the entertainment is the palace-garden; for trees grow on either side of the main figures, while over their heads a vine hangs its festoons and its rich clusters. By the side of the royal couch, and in front of the queen, is a table covered with a table-cloth, on which are a small box or casket, a species of shallow bowl which may have held incense or perfume of some kind, and a third article frequently seen in close proximity to the king, but of whose use it is impossible to form a conjecture. At the couch's head stands another curious article, a sort of tall vase surmounted by a sugarloaf, which probably represents an altar. The king bears in his left hand the lotus or sacred flower, while the queen holds in hers what looks like a modern

fan. All the lower part of the monarch's person is concealed beneath a coverlet, which is plain, except that it has tassels at the corners and an embroidered border.

The officers in close attendance upon the monarch varied according to his employment. In war he was accompanied by his charioteer, his shield-bearer or shield-bearers, his groom, his



Royal parasol (Nimrud).



Royal parasol (Koyunjik).

quiver-bearer, his mace-bearer, and sometimes by his parasol-bearer. In peace the parasol-bearer is always represented as in attendance, except in hunting expeditions, or where he is re-

placed by a fan-bearer. The parasol, which exactly resembled that still in use throughout the East, was reserved exclusively for the monarch. It had a tall and thick pole, which the bearer grasped with both his hands, and in the early times a somewhat small circular top. Under the later kings the size of the head was considerably enlarged, and, at the same time, a curtain or flap was attached, which, falling from the edge of the parasol, more effectually protected the monarch from the sun's rays. The head of the parasol was fringed with tassels, and the upper extremity of the pole commonly terminated in a flower or other ornament. In the later time both the head and the curtain which depended from it were richly patterned. If we may trust the remains of colour upon the Khorsabad sculptures, the tints preferred were red and white, which alternated in bands upon the parasol as upon the royal tiara.

There was nothing very remarkable in the dress or quality of the royal attendants. Except the groom, the charioteer, and the shield-bearers, they were in the early times almost invariably eunuchs; but the later kings seem to have preferred eunuchs for the offices of parasol-bearer and fan-bearer only. The dress of the eunuchs is most commonly a long fringed gown, reaching from the neck to the feet, with very short sleeves, and a broad belt or girdle confining the gown at the waist. Sometimes they have a cross-belt also; and occasionally both this and the girdle round the waist are richly fringed.[1] The eunuchs commonly wear ear-rings, and sometimes armlets and bracelets; in a few instances they have their necks adorned with necklaces, and their long dresses elaborately patterned.[2] Their heads are either bare,[3] or at most encircled with a fillet.

A peculiar physiognomy is assigned to this class of persons—the forehead low, the nose small and rounded, the lips full, the chin large and double, the cheeks bloated. They are generally

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[1] See p. 290 and p. 292. M. Botta supposes that *both* fringes were attached to the cross-belt (*Monument de Ninive*, vol. v. p. 86); but in that case the lower of the two would scarcely have terminated, as it does, horizontally.

[2] See Mr. Layard's *Monuments*, 1st Series, Pl. 5.

[3] See the illustration in p. 237, and compare below, pp. 498, 502, 506, and 507.

represented as shorter and stouter than the other Assyrians. Though placed in confidential situations about the person of the monarch, they seem not to have held very high or im-

Heads of Eunuchs (Nimrud).

portant offices. The royal Vizier is never a eunuch, and eunuchs are rarely seen among the soldiers; they are scribes, cooks, musicians, perhaps priests;[4] they are grooms-in-waiting, huntsmen, parasol-bearers, and fan-bearers; but it cannot be said with truth that they had the same power in Assyria which they have commonly possessed in the more degraded of the Oriental monarchies. It is perhaps a sound interpretation of the name Rabsaris in Scripture to understand it as titular, not appellative,[5] and to translate it "the Chief Eunuch" or "the Master of the Eunuchs;" and if so, we have an instance of the employment by one Assyrian king of a person of this class on an embassy to a petty sovereign; but the sculptures are far from bearing out the notion that eunuchs held the *same* high position in the Assyrian court as they have since held generally in the East,[6] where they have not only continually filled the

[4] This point will be considered in the chapter on the Religion of the Assyrians.

[5] See Smith's *Biblical Dictionary*, vol. i. p. 590.

[6] This is Mr. Layard's view. (*Nineveh and its Remains*, vol. ii. p. 325.)

highest offices of state, but have even attained to sovereign power. On the contrary, their special charge seems rather to have been the menial offices about the person of the monarch, which imply confidence in the fidelity of those to whom they are intrusted, but not submission to their influence in the conduct of state affairs. And it is worthy of notice that, instead of becoming more influential as time went on, they appear to have become less so; in the later sculptures the royal attendants are far less generally eunuchs than in the earlier ones;[7] and the difference is most marked in the more important offices.[8]

It is not quite certain that the Chief Eunuch is represented upon the sculptures. Perhaps we may recognise him in an attendant, who commonly bears a fan, but whose special badge of office is a long fringed scarf or band, which hangs down below his middle both before him and behind him, being passed over the left shoulder. This officer appears, in one bas-relief, alone in front of the king; in another, he stands on the right hand of the Vizier, level with him, facing the king as he drinks; in a third, he receives prisoners after a battle; while in another part of the same sculpture he is in the king's camp preparing the table for his master's supper. There is always a good deal of ornamentation about his dress, which otherwise nearly resembles that of the inferior royal attendants, consisting of a long fringed gown or robe, a girdle

The Chief Eunuch (?)—Nimrud.

[7] See especially the slabs of Asshur-bani-pal (Layard, *Monuments*, 2nd Series, Pls. 47 to 49), where less than half the royal attendants are eunuchs.

[8] From the time of Sennacherib downwards the king's quiver-bearer and mace-bearer, two attendants very close to his person, cease to be eunuchs. The last chief eunuch recorded as holding the office of eponym belongs to the reign of Tiglath-Pileser II.

fringed or plain, a cross-belt generally fringed, and the scarf already described. His head and feet are generally bare, though sometimes the latter are protected by sandals.[9] He is found only upon the sculptures of the early period.

Among the officers who have free access to the royal person, there is one who stands out with such marked prominence from the rest that he has been properly recognised as the Grand Vizier or prime minister[10]—at once the chief counsellor of the monarch, and the man whose special business it was to signify and execute his will. The dress of the Grand Vizier is more rich than that of any other person except the monarch;[11] and there are certain portions of his apparel which he and the king have alone the privilege of wearing. These are, principally, the tasselled apron and the fringed band depending from the fillet, the former of which is found in the early period only,[12] while the latter belongs to no particular time, but throughout the whole series of sculptures is the distinctive mark of royal or quasi-royal authority. To these two may be added the long ribbon or scarf, with double streamers at the ends, which depended from, and perhaps fastened, the belt[13]—a royal ornament worn also by the vizier in at least one representation.[14]

Head-dress of the Vizier (Khorsabad)

The chief garment of the Vizier is always a long fringed robe, reaching from the neck to the

[9] See below, p. 502.

[10] Layard's *Nineveh and its Remains*, vol. ii. p. 327. M. Botta suggests that this prominent officer is "un Mage" (*Monument*, vol. v. p. 86); but he appears in scenes which have no religious character.

[11] Sometimes, where the king and the vizier appear together, the robe of the vizier is even richer in its ornamentation than that of the monarch. (See Layard, *Monuments*, 1st Series, Pl. 23.)

[12] Layard, *Monuments*, 1st Series, Pls. 12 and 23. There is one bas-relief where the tasselled apron is worn, not only by the Vizier, but also by the Chief Eunuch and other principal attendants. See below, p. 502.

[13] See above, p. 491, and compare the illustration opposite.

[14] Layard, *Monuments*, 1st Series, Pl. 12.

feet. This is generally trimmed with embroidery at the top, round the sleeves, and round the bottom. It is either seen to be confined by a broad belt round the waist, or else is covered from the waist to the knees by two falls of a heavy and deep fringe. In this latter case a broad cross-belt is worn over the left shoulder, and the upper fall of fringe hangs from the cross-belt. A fillet is worn upon the head, which is often highly

Costume of the Vizier.
(Time of Sennacherib.)

Costume of the Vizier.
(Time of Asshur-izir-pal.)

ornamented.[1] The feet are sometimes bare, but more often are protected by sandals, or (as in the accompanying representation) by embroidered shoes. Ear-rings adorn the ears; bracelets, sometimes accompanied by armlets, the arms. A sword is generally worn at the left side.

The Vizier is ordinarily represented in one of two attitudes. Either he stands with his two hands joined in front of him, the

[1] See the woodcut on preceding page.

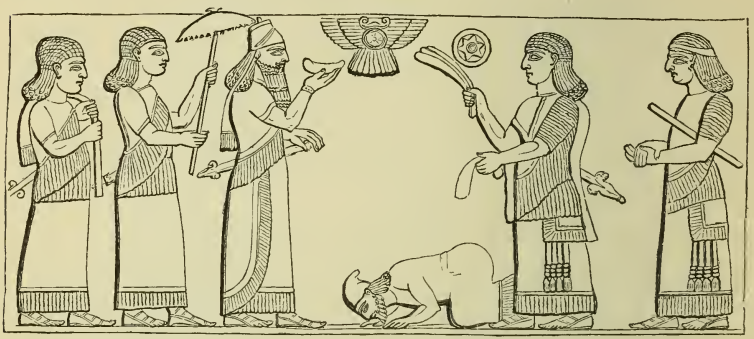
right hand in the left, and the fingers, not clapsed, but left loose—the ordinary attitude of passive and respectful attention, in which officers who carry nothing await the orders of the king—or he has the right arm raised, the elbow bent, and the right hand brought to a level with his mouth, while the left hand rests upon the hilt of the sword worn at his left side. In this latter case it may be presumed that we have the attitude of conversation, as in the former we have that of attentive listening. Where the Vizier assumes this energetic posture, he is commonly either introducing prisoners or bringing in spoil to the king. When he is quiescent, he stands before the throne to receive the king's orders, or witnesses the ceremony with which it was usual to conclude a successful hunting expedition.

The pre-eminent rank and dignity of this officer is shown, not only by his participation in the insignia of royal authority,[2] but also and very clearly by the fact, that, when he is present, no one ever intervenes between him and the king. He has the undisputed right of precedence, so that he is evidently the first subject of the crown. He, and he alone, is seen addressing the monarch. He does not always accompany the king on his military expeditions; but, when he attends them, he still maintains his position,[3] having a dignity greater than that of any general, and so taking the entire direction of the prisoners and of the spoil.

The royal fan-bearers were two in number. They were invariably eunuchs. Their ordinary position was behind the monarch, on whom they attended alike in the retirement of private life and in religious and civil ceremonies. On some occasions however one of the two was privileged to leave his station behind the king's chair or throne, and, advancing in front, to perform certain functions before the face of his master. He handed his master the sacred cup and waited to receive it back,[4] at the same time diligently discharging the ordinary duties of his office by keeping up a current of air and chasing

[2] Supra, p. 499.
[3] See Mr. Layard's *Monuments*, 1st Series, Pls. 63 and 77; 2nd Series, Pl. 23.
[4] *Monuments*, 1st Series, Pl. 12.

away those plagues of the East—the flies. The fan-bearer thus privileged wears always the long tasselled scarf, which seems to have been a badge of office, and may not improbably mark him for the Chief Eunuch.[5] In the absence of the Vizier, or sometimes in subordination to him,[6] he introduced tribute-bearers to the king, reading out their names and titles from a scroll or tablet which he held in his left hand.



Tribute-bearers presented by the Chief Eunuch (Nimrud obelisk).

The fan carried by these attendants seems in most instances to have been made of feathers. It had a shortish handle, which was generally more or less ornamented, and frequently terminated in the head of a ram or other animal. The feathers were sometimes of great length, and bent gracefully by their own weight, as they were pointed slantingly towards the monarch. Occasionally a comparatively short fan was used, and the feathers were replaced by a sort of brush, which may have been made of horse-hair, or possibly of some vegetable fibre.[7]

The other attendants on the monarch require no special notice. With regard to their number, however, it may be observed that, although the sculptures generally do not represent them as very numerous, there is reason to believe that

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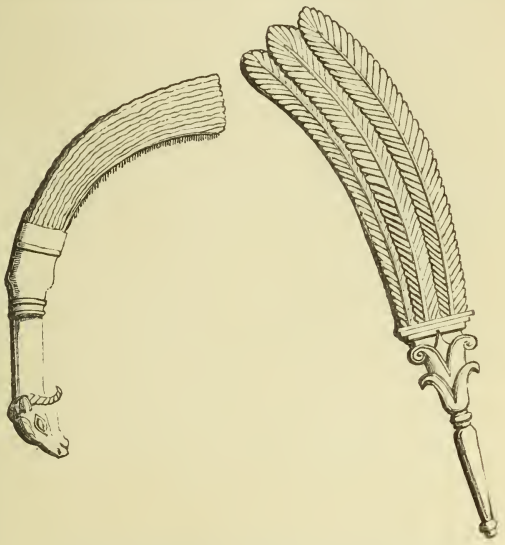
[5] Supra, p. 498.

[6] See the Black Obelisk, First Side (*Monuments of Nineveh*, 1st Series, Pl. 53), where the king is faced by the vizier in the topmost compartment, and immediately below by this official, represented as in the woodcut above.

[7] The short brush-fan belongs to the earlier, the long feather fan to the later, period. (See the woodcuts on p. 493, above, and p. 515.)

they amounted to several hundreds. The enormous size of the palaces can scarcely be otherwise accounted for: and in one sculpture of an exceptional character, where the artist seems to have aimed at representing his subject in full, we can count above seventy attendants present with the monarch at one time.[8] Of these less than one-half are eunuchs; and these wear the long robe with the fringed belt and cross-belt. The other attendants wear in many cases the same costume; sometimes, however, they are dressed in a tunic and greaves, like the soldiers.[9]



Fans or fly-flappers (Nimrud and Koyunjik).

There can be no doubt that the court ceremonial of the Assyrians was stately and imposing. The monarch seems indeed not to have affected that privacy and seclusion which forms a predominant feature of the ceremonial observed in most Oriental monarchies.[10] He showed himself very freely to his subjects on many occasions. He superintended in person the accomplishment of his great works.[11] In war and in the chase he rode in an open chariot, never using a litter, though

[8] *Monuments of Nineveh*, 2nd Series, Pls. 47 to 49.

[9] Still they do not seem to be soldiers. They carry neither spears, shields, nor bows, and they stand with the hands joined—an attitude peculiar to the royal attendants.

[10] Herodotus ascribed the invention of this practice to Deïoces, his first Median king (i. 99). Diodorus believed that it had prevailed in Assyria at a much earlier date (ii. 21). But in this he was certainly mistaken. On its general prevalence in the East, see Brisson, *De Reg. Pers. Princ.* i. p. 23; and compare Gibbon, *Decline and Fall*, ch. xiii. (vol. ii. p. 95, Smith's edition).

[11] Layard, *Monuments of Nineveh*, 2nd Series, Pls. 12 and 15.

litters were not unknown to the Assyrians.[12] In his expeditions he would often descend from his chariot, and march or fight on foot like the meanest of his subjects. But though thus familiarizing the multitude with his features and appearance, he was far from allowing familiarity of address. Both in peace and war he was attended by various officers of state, and no one had speech of him except through them. It would even seem as if two persons only were entitled to open a conversation with him—the Vizier and the Chief Eunuch. When he received them, he generally placed himself upon his throne, sitting, while they stood to address him. It is strongly indicative of the haughty pride of these sovereigns that they carried with them in their distant expeditions the cumbrous thrones[1] whereon they were wont to sit when they dispensed justice or received homage. On these thrones they sat, in or near their fortified camps, when the battle or the siege was ended, and thus sitting they received in state the spoil and the prisoners. Behind them on such occasions were the two fan-bearers, while near at hand were guards, scribes, grooms, and other attendants. In their palace halls undoubtedly the ceremonial used was stricter, grander, and more imposing. The sculptures, however, furnish no direct evidence on this point, for there is nothing to mark the scene of the great processional pieces.

In the pseudo-history of Ctesias the Assyrian kings were represented as voluptuaries of the extremest kind, who passed their whole lives within the palace, in the company of their concubines and their eunuchs, indulging themselves in perpetual ease, pleasure, and luxury.[2] We have already seen how the warlike character of so many monarchs gives the lie to these statements, so far as they tax the Assyrian kings with sloth and idleness.[3] It remains to examine the charge of over-addiction

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[12] See below, p. 588.

[1] For representations of these thrones see pp. 393, 394. Sargon's throne is represented as carried by two attendants on his triumphant return from an expedition. (Botta, *Monument de Ninive*, vol. i. Pl. 18.) Sennacherib sits on his throne to receive captives outside the walls of a town supposed to be Lachish. (Layard, *Nineveh and Babylon*, pp. 150-152.) Instances of kings sitting on their thrones inside their fortified camps will be found in Mr. Layard's *Monuments*, 1st Series, Pls. 63 and 77.

[2] Diod. Sic. ii. 21, 23.

[3] See above, pp. 462-484.

to sensual delights, especially to those of the lowest and grossest description. Now it is at least remarkable that, so far as we have any real evidence, the Assyrian kings appear as monogamists. In the inscription on the god Nebo, the artist dedicates his statue "to his lord Vul-lush (?) and *his lady*, Sammuramit."[4] In the solitary sculptured representation of the private life of the king,[5] he is seen in the company of one female only. Even in the very narrative of Ctesias, Ninus has but one wife, Semiramis;[6] and Sardanapalus, notwithstanding his many concubines, has but five children, three sons and two daughters.[7] It is not intended to press these arguments to an extreme, or to assume, on the strength of them, that the Assyrian monarchs were really faithful to one woman. They may have had—nay, it is probable that they had—a certain number of concubines; but there is really not the least ground for believing that they carried concubinage to an excess, or overstepped in this respect the practice of the best Eastern sovereigns. At any rate they were not the voluptuaries which Ctesias represented them. A considerable portion of their lives was passed in the toils and dangers of war; and their peaceful hours, instead of being devoted to sloth and luxury in the retirement of the palace, were chiefly employed, as we shall presently see, in active and manly exercises in the field, which involved much exertion and no small personal peril.

The favourite occupation of the king in peace was the chase of the lion. In the early times he usually started on a hunting expedition in his chariot, dressed as when he went out to war, and attended by his charioteer, some swordsmen, and a groom holding a led horse. He carried a bow and arrows, a sword, one or two daggers, and a spear, which last stood in a rest made for it at the back of the chariot.[8] Two quivers, each containing an axe and an abundant supply of arrows, hung from the chariot

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[4] See the author's *Herodotus*, vol. i. p. 382, note [2], 2nd ed.

[5] Supra, p. 493. M. Lenormant appears to have mistaken the eunuchs who are in attendance, playing on instruments or fanning the king, for the other members of his hareem (*Manuel*, vol. ii. p. 122).

[6] Diod. Sic. ii. 4, § 1; 7, § 1.

[7] Ibid. ii. 26, § 8.

[8] See p. 344.

transversely across its right side, while a shield armed with teeth was suspended behind. When a lion was found, the king pursued it in his chariot, letting fly his arrows as he went, and especially seeking to pierce the animal about the heart and head. Sometimes he transfixed the beast with three or four shafts before it succumbed. Occasionally the lion attacked him in his chariot, and was met with spear and shield,[9] or with a fresh arrow, according to the exigencies of the moment, or the monarch's preference for one or the other weapon. On rare occasions the monarch descended to the ground, and fought afoot. He would then engage the lion in close combat with no other weapon but a short sword, which he strove to plunge, and often plunged, into its heart.

King killing a lion (Nimrud).

King, with attendants, spearing a lion (Koyunjik).

In the later times, though the chariot was still employed to some extent in the lion-hunts, it appears to have been far more

[9] See p. 347.

usual for the king to enjoy the sport on foot. He carried a straight sword, which seems to have been a formidable weapon; it was strong, very broad, and two feet or a little more in length. Two attendants waited closely upon the monarch, one of whom carried a bow and arrows, while the other was commonly provided with one or two spears. From these attendants the king took the bow or a spear at pleasure, usually commencing the attack with his arrows, and finally despatching the spent

King, with attendant, stabbing a lion (Koyunjik).

animal with sword or spear, as he deemed best. Sometimes, but not very often, the spearman in attendance carried also a shield, and held both spear and shield in advance of his master to protect him from the animal's spring.[10] Generally the monarch faced the danger with no such protection, and received the brute on his sword or thrust him through with his pike. Perhaps the sculptures exaggerate the danger which he affronted at such moments; but we can hardly suppose that there was not a good deal of peril incurred in these hand-to-hand contests.[11]

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[10] See the illustration, p. 359.

[11] In an inscription appended to one of his sculptures, Asshur-bani-pal says —"I, Asshur-bani-pal, king of the nations, king of Assyria, in my great courage fighting on foot with a lion,

Two modes of hunting the king of beasts were followed at this time. Either he was sought in his native haunts, which were then, as now, the reedy coverts by the side of the canals and great streams; or he was procured beforehand, conveyed to the hunting-ground, and there turned out before the hunters. In the former case the monarch took the field accompanied by his huntsmen and beaters on horse and foot, these last often holding dogs in leash, which, apparently, were used only to discover and arouse the game, but were not slipped at it when started. No doubt the hunt was sometimes entirely on the land, the monarch accompanying his beaters along one or other of the two banks of a canal or stream. But a different plan is known to have been adopted on some occasions. Disposing his beaters to the right and left upon both banks, the monarch with a small band of attendants would take ship, and, while his huntsmen sought to start the game on either side, he would have himself rowed along so as just to keep pace with them, and would find his sport in attacking such lions as took the water. The monarch's place on these occasions was the middle of the boat. Before him and behind him were guards armed with spears, who were thus ready to protect their master, whether the beast attacked him in front or rear. The monarch used a round bow, like that commonly carried in war, and aimed either at the heart or at the head. The spearmen presented their weapons at the same time, while the sides of the boat were also sufficiently high above the water to afford a considerable protection against the animal's spring. An attendant immediately behind the monarch held additional arrows ready for him; and after piercing the noble brute with three or four of these weapons, the monarch had commonly the satisfaction of seeing him sink down and expire. The carcase was then taken from the water: the fore and hind legs were lashed together with string, and the beast was suspended from the hinder part of the boat, where he hung over the water just out of the sweep of the oars.[12]

terrible for his size, seized him by the ear, and in the name of Asshur and Ishtar, Goddess of war, with the spear that was in my hand I terminated his life." (Fox Talbot in *Journal of the Asiatic Society*, vol. xix. p. 272.)

[12] See the woodcut, p. 361.

At other times, when it was felt that the natural chase of the animal might afford little or no sport, the Assyrians (as above stated) called art to their assistance, and, having obtained a supply of lions from a distance, brought them in traps or cages to the hunting-ground, and there turned them out before the monarch. The walls of the cage were made of thick spars of wood, with interstices between them, through which the lion could both see and be seen: probably the top was entirely covered with boards, and upon these was raised a sort of low hut or sentry-box, just large enough to contain a man, who,

Lion let out of trap (Koyunjik).

when the proper moment arrived, peeped forth from his concealment and cautiously raised the front of the trap, which was a kind of drop-door working in a groove. The trap being thus opened, the lion stole out, looking somewhat ashamed of his confinement, but doubtless anxious to vent his spleen on the first convenient object. The king, prepared for his attack, saluted him, as he left his cage, with an arrow, and, as he advanced, with others, which sometimes stretched him dead upon the plain, sometimes merely disabled him, while now and then they only goaded him to fury. In this case he would spring at the royal chariot, clutch some part of it, and in his

agony grind it between his teeth,[1] or endeavour to reach the inmates of the car from behind.[2] If the king had descended from the car to the plain, the infuriated beast might make his spring at the royal person, in which case it must have required a stout heart to stand unmoved, and aim a fresh arrow at a vital part while the creature was in mid-air, especially if (as we sometimes see represented) a second lion was following close upon the first and would have to be received within a few seconds.[3] It would seem that the lions on some occasions were not to be goaded into making an attack, but simply endeavoured to escape

Hound held in leash (Koyunjik).

by flight. To prevent this, troops were drawn up in a double line of spearmen and archers round the space within which the lions were let loose, the large shields of the front or spearman line forming a sort of wall, and the spears a *chevaux de frise*, through which it was almost impossible for the beasts to break. In front of the soldiers attendants held hounds in leashes, which either by their baying and struggling frightened

[1] See the illustration, p. 358.

[2] Such attempts are common both in the earlier and the later sculptures. (See pp. 344 and 347.)

[3] As in the slab of Asshur-bani-pal, from which the representation is taken on p. 359.

the animals back, or perhaps assisted to despatch them.[4] The king meanwhile plied his bow, and covered the plain with carcases, often striking a single beast with five or six shafts.

The number of lions destroyed at these royal *battues* is very surprising. In one representation[5] no fewer than eighteen are seen upon the field, of which eleven are dead and five seriously wounded. The introduction of trapped beasts would seem to imply that the game, which under the earlier monarchs had been exceedingly abundant,[6] failed comparatively under the later ones, who therefore imported it from a distance. It is evident however that this scarcity was not allowed to curtail the royal amusement. To gratify the monarch, hunters sought remote and savage districts, where the beast was still plentiful, and, trapping their prey, conveyed it many hundreds of miles to yield a momentary pleasure to the royal sportsman.

It is instructive to contrast with the boldness shown in the lion-hunts of this remote period the feelings and conduct of the present inhabitants of the region. The Arabs, by whom it is in the main possessed, are a warlike race, accustomed from infancy to arms and inured to combat. "Their hand is against every man, and every man's hand is against them." Yet they tremble if a lion is but known to be near,[7] and can only with the utmost difficulty be persuaded by an European to take any part in the chase of so dangerous an animal.[8]

The lioness, no less than the lion, appears as a beast of chase upon the sculptures. It seems that in modern times she is quite as much feared as her consort. Indeed, when she has laid

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[4] No instance, however, is found of a hound engaged with a lion.

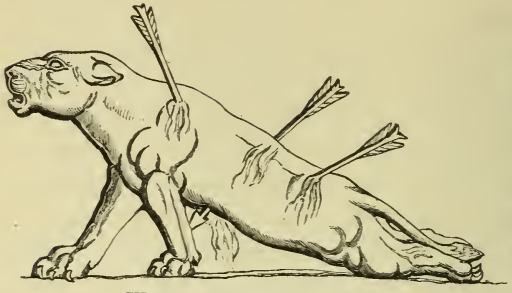
[5] See the Great Lion Hunt of Asshur-bani-pal in the basement room, British Museum.

[6] Tiglath-Pileser I. relates that in his various journeys he killed 800 lions. (*Inscription*, p. 56.)

[7] Supra, p. 39; compare Loftus, *Chaldæa and Susiana*, pp. 243, 244, &c.

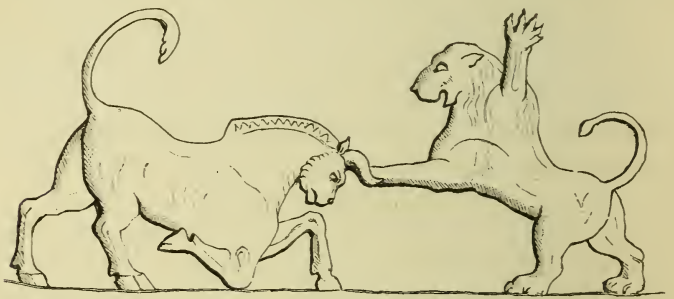
[8] Loftus, p. 261. Mr. Layard, however, relates that the Maidan Arabs have a plan on the strength of which they venture to attack lions, even singly. "A man, having bound his right arm with strips of tamarisk, and holding in his hand a strong piece of the same wood, about a foot or more in length, hardened in the fire and sharpened at both ends, will advance boldly into the animal's lair. When the lion springs upon him, he forces the wood into the animal's extended jaws, which will then be held open whilst he can despatch the astonished beast at his leisure with the pistol which he holds in his left hand." (*Nineveh and Babylon*, p. 567.)

up cubs, she is even thought to be actually the more dangerous of the two.[9]



Wounded lioness (Koyunjik).

Next to the chase of the lion and lioness, the early Assyrian monarchs delighted in that of the wild bull. It is not quite certain what exact species of animal is sought to be expressed by the representations upon the sculptures; but on the whole it is perhaps most probable that the Aurochs or European bison (*Bos urus* of naturalists) is the beast intended.[10] At any rate it was an animal of such strength and courage that, according to the Assyrian belief, it ventured to contend with the lion.



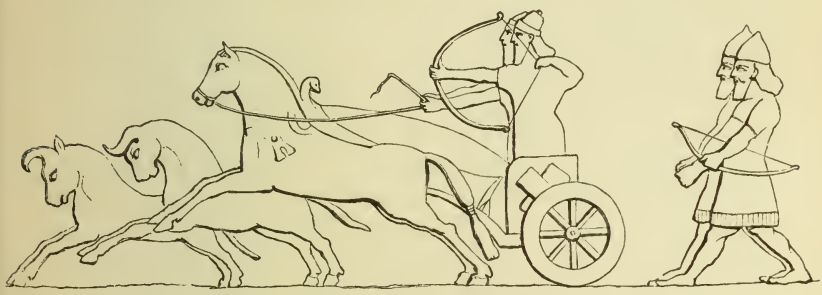
Fight of lion and bull (Nimrud).

The Assyrian monarchs chased the wild bull in their chariots without dogs, but with the assistance of horsemen, who turned

[9] Loftus, pp. 259-262.

[10] The Aurochs is still found in the Caucasus. Its fore-parts are covered by a sort of frizzled wool or hair, which "forms a beard or small mane upon the throat" (*Encycl. Brit.* ad voc. Mammalia, vol. xiv. p. 215). Such a mane is often represented upon the sculptures. (Layard, *Monuments*, 1st Series, Pls. 32, 46, &c.) Its horns are placed low, and are very thick. Its shoulders are heavy and of great depth. In height it measures six feet at the shoulder, and is between ten and eleven feet in length from the nose to the insertion of the tail. All these characteristics seem to me to agree well with the sculptured bulls of the Assyrians, which are far less like the wild buffalo (*Bos bubalus*).

the animals when they fled, and brought them within the monarch's reach.[11] The king then aimed his arrows at them, and the attendant horsemen, who were provided with bows, seem to have been permitted to do the same. The bull seldom fell until he had received a number of wounds; and we sometimes see as many as five arrows still fixed in the body of one that has succumbed.[12] It would seem that the bull, when pushed, would, like the lion, make a rush at the king's chariot, in which case the monarch seized him by one of the horns and gave him the *coup de grâce* with his sword.



King hunting the wild bull (Nimrud).

The special zest with which this animal was pursued[1] may have arisen in part from its scarcity. The Aurochs is wild and shy; it dislikes the neighbourhood of man, and has retired before him till it is now found only in the forests of Lithuania, Carpathia, and the Caucasus. It seems nearly certain that, in the time of the later kings, the species of wild cattle previously hunted, whatever it was, had disappeared from Assyria altogether; at least this is the only probable account that can be given of its non-occurrence in the later sculptures, more

[11] See Mr. Layard's *Monuments*, 1st Series, Pl. 48, fig. 6.

[12] Ibid. Pl. 11.

[1] The pursuit of the wild bull is represented with more frequency and in greater detail upon the early sculptures than even that of the lion. In the Nimrud series we see the bull pursued by chariots, horsemen, and footmen, both separately and together. We observe him prancing among reeds, reposing, fighting with the lion, charging the king's chariot, wounded and falling, fallen, and lastly laid out in state for the final religious ceremony. No such elaborate series illustrates the chase of the rival animal. (See Mr. Layard's *Monuments*, 1st Series, Pls. 11, 12, 32, 43, 44, 45, 46, 48, and 49.)

especially in those of Asshur-bani-pal, the son of Esar-haddon, which seem intended to represent the chase under every aspect known at the time. We might therefore presume it to have been, even in the early period, already a somewhat rare animal. And so we find in the Inscriptions that the animal, or animals, which appear to represent wild cattle,[2] were only met with in outlying districts of the empire—on the borders of Syria and in the country about Harran—and then in such small numbers[3] as to imply that even there they were not very abundant.

When the chase of the nobler animals—the lion and the wild bull—had been conducted to a successful issue, the hunters returned in a grand procession to the capital, carrying with them as trophies of their prowess the bodies of the slain. These were borne aloft on the shoulders of men, three or four being required to carry each beast. Having been brought to an appointed spot, they were arranged side by side upon the ground, the heads of all pointing the same way; and the monarch, attended by several of his principal officers, as the Vizier, the Chief Eunuch, the fan-bearers, the bow and mace bearers, and also by a number of musicians, came to the place, and solemnly poured a libation over the prostrate forms, first however (as it would seem) raising the cup to his own lips.[4] It is probable that this ceremony had to some extent a religious character.

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[2] There are two animals mentioned in the Tiglath-Pileser Inscription which have been thought to represent wild cattle. These are hunted respectively in the Hittite country, *i.e.* Northern Syria, and in the neighbourhood of Harran. (*Inscription*, pp. 54 and 56, 1st column.) Sir H. Rawlinson translates, in the two places, "wild bulls" and "wild buffaloes." Dr. Hincks agrees in the former rendering, while in the latter passage he suggests "elephants." But elephants seem not to be able to exist in the wild state more than a very few degrees outside the tropics.

The Assyrian word in the first of the two passages is read as "Rim," and the animal should therefore be identical with the רְאֵם or רִים of Holy Scripture. Although the Arabs give the name of *Raim* to a large antelope, and a similar use of that term seems to have been known in Egypt (Layard, *Nineveh and its Remains*, vol. ii. p. 429), yet the Hebrew term "Rim" appears, from a comparison of the passages in which it occurs, almost certainly to mean an animal of the ox kind. (See especially Is. xxxiv. 17, where it is joined with the domestic bull, and Job xxxix. 9-12, where the questions derive their force from an implied comparison with that animal.)

[3] Four "Rims" only are mentioned as slain. Of the other animal ten were slain and four taken. Of lions on the same expedition Tiglath-Pileser slew a hundred and twenty.

[4] This appears from the sculpture represented by Mr. Layard in his *Monuments*, 1st Series, Pl. 12, where the ceremony is performed over a bull.

The Assyrian monarchs commonly ascribe the success of their hunting expeditions to the gods Nin (or Ninip) and Nergal;[5] and we may well understand that a triumphant return would be accompanied by a thank-offering to the great protectors under whose auspices success had been achieved.

Besides the wild bull and the lion, the Assyrians are known to have hunted the following animals—the onager or wild ass, the stag, the ibex or wild goat, the gazelle, and the hare.

King pouring libation over four dead lions (Koyunjik).

The chase of the wild ass was conducted in various ways. The animal was most commonly pursued with dogs. The large and powerful hounds of the Assyrians, of which a certain use was made even in the chase of the lion,[6] have been already noticed; but it may be desirable in this place to give a fuller account of them. They were of a type approaching to that of our mastiff, being smooth haired, strong limbed, with a somewhat heavy head and neck, small pointed but drooping ears,[7] and a long tail which was bushy and a little inclined to curl. They seem to have been very broad across the chest, and altogether better developed as to their fore than as to their hind parts, though even their hind legs were tolerably strong and sinewy. They must have been exceedingly bold, if they really faced the hunted lion; and their pace must have been considerable, if they were found of service in chasing the wild ass.

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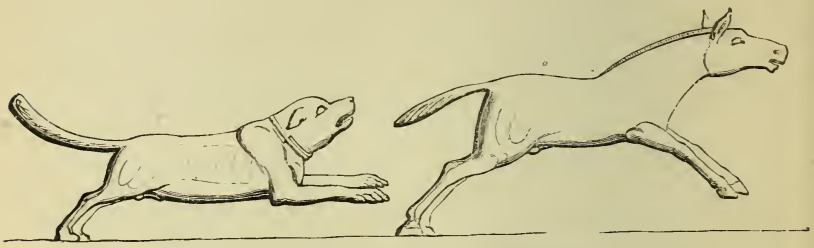
[5] See above, pp. 132 and 136.

[6] Supra, pp. 508 and 510.

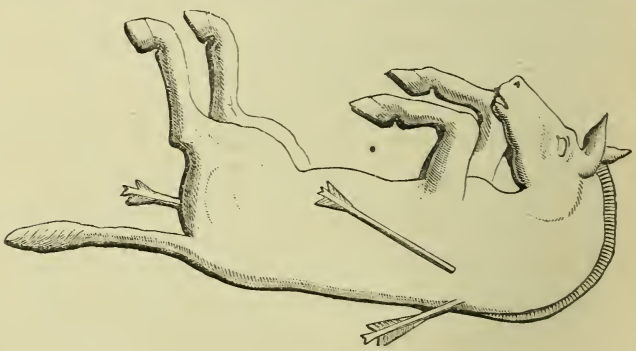
[7] The ear is commonly represented as drooping, but some specimens indicate that it could be erected at pleasure. (See p. 234, No. I.)

The hunters are represented as finding the wild asses in herds, among which are seen a certain number of foals. The king and his chief attendants pursue the game on horseback, armed with bows and arrows, and discharging their arrows as



Hound chasing a wild ass colt (Koyunjik).

they go. Hounds also—not now held in leash, but free—join in the hunt, pressing on the game, and generally singling out some one individual from the herd, either a young colt, or sometimes a full-grown animal. The horsemen, occasionally, brought down the asses with their shafts; when their archery failed of success, the chase depended on the hounds, which are represented as running even the full-grown animal to a stand, and then

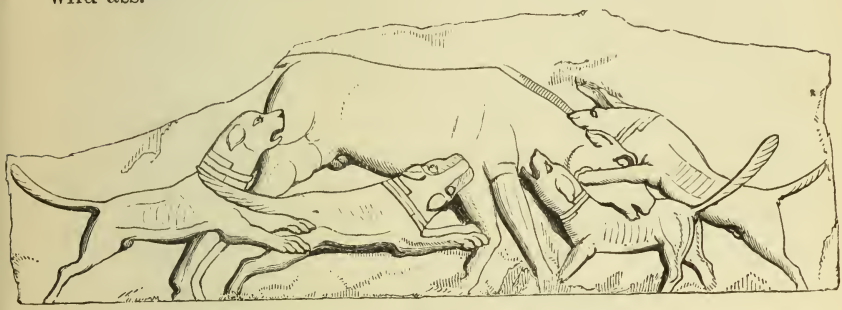


Dead wild ass (Koyunjik).

worrying him till the hunters came up to give the last blow. Considering the speed of the full-grown wild ass, which is now regarded as almost impossible to take,[8] we may perhaps con-

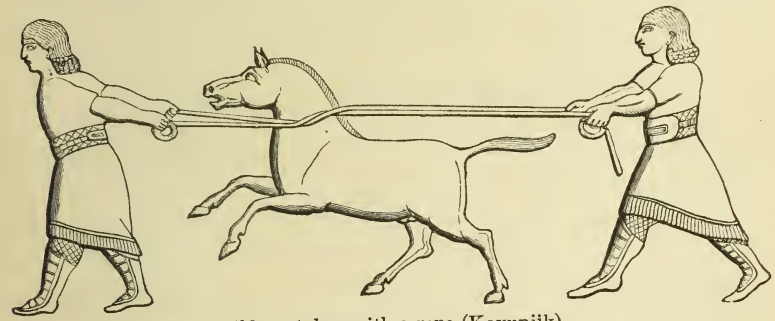
[8] Layard, *Nineveh and Babylon*, p. 270, note.

clude that the animals thus run down by the hounds were such as the hunters had previously wounded;[9] for it can scarcely be supposed that such heavily-made dogs as the Assyrian could really have caught an unwounded and full-grown wild ass.



Hounds pulling down a wild ass (Koyunjik).

Instead of shooting the wild ass, or hunting him to the death with hounds, an endeavour was sometimes made to take him alive. A species of noose seems to have been made by means of two ropes interlaced, which were passed—how, we cannot say—round the neck of the animal, and held him in



Wild ass taken with a rope (Koyunjik).

such a way that all his struggles to release himself were vain. This mode of capture recalls the use of the lasso by the South Americans, and the employment of nooses by various nations,

[9] Yet it must be confessed that in the representations no trace of a wound is to be seen.

not merely in hunting, but in warfare.[1] It is doubtful, however, if the Assyrian practice approached at all closely to any of these. The noose, if it may be so called, was of a very peculiar kind. It was not formed by means of a slip-knot at the end of a single cord, but resulted from the interlacing of two ropes one with the other. There is great difficulty in understanding how the ropes were got into their position. Certainly no single throw could have placed them round the neck of the animal in the manner represented, nor could the capture have been effected, according to all appearance, by a single hunter. Two persons, at least, must have been required to combine their efforts, one before and one behind the creature which it was designed to capture.

Hound chasing a doe (Koyunjik).

Deer, which have always abounded in Assyria,[2] were either hunted with dogs, or driven by beaters into nets, or sometimes shot with arrows by sportsmen. The woodcut on this page represents a dog in chase of a hind, and shows that the hounds

[1] See Herod. vii. 85, and the author's note ad loc. vol. iv. p. 75. Compare Pausan. i. 21, § 8; Suidas ad voc. σειρά, and Sir G. Wilkinson's *Ancient Egyptians*, 1st Series, vol. iii. p. 15.

[2] See above, p. 225; and compare Layard's *Nineveh and its Remains*, vol. ii. p. 431.

which the Assyrians used for this purpose were of the same breed as those employed in the hunt of the lion and of the wild ass.[3] In the woodcut below we have a stricken stag, which may, perhaps, have been also hard pressed by hounds, in the

Hunted stag taking the water (Koyunjik).

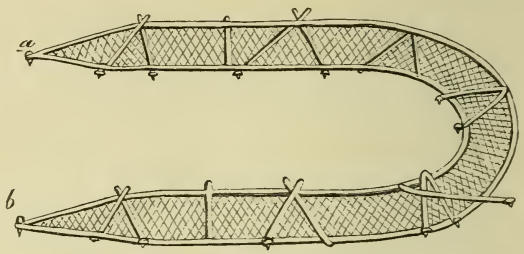
act of leaping from rocky ground into water. It is interesting to find this habit of the stag, with which the modern English sportsman is so familiar, not merely existing in Assyria, but noticed by Assyrian sculptors, at the distance of more than twenty-five centuries from our own time.

When deer were to be taken by nets, the sportsman began by setting in an upright position, with the help of numerous poles and pegs, a long, low net, like the δίκτυον of the Greeks.[4]

[3] Supra, pp. 510, 516, and 517.

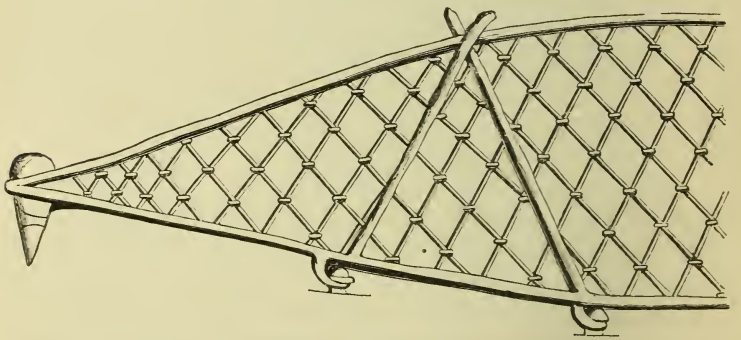
[4] For representations of the δίκτυον see Dr. Smith's *Dictionary of Greek and Roman Antiquities*, p. 989, 2nd ed.; and for descriptions of its use cf. Virg. *Æn.* iv. 121; Eurip. *Bacch.* 821-832; Ælian. *Hist. An.* xii. 46; Oppian. *Cyneget.* iv. 120, &c. Nets of a similar construction were used for the same purpose by the Egyptians. (Wilkinson, *Ancient Egyptians*, 1st Series, vol. iii. pp. 4-7.)

This was carried round in a curved line of considerable length, so as to enclose an ample space on every side excepting one, which was left open for the deer to enter. The meshes of the net were large and not very regular. They were carefully



No. I. Net spread to take deer (Koyunjik).

secured by knots at all the angles. The net was bordered both at top and at bottom by a rope of much greater strength and thickness than that which formed the network; and this was fastened to the ground at the two extremities by pegs of superior size. The general height of the net was about that of a

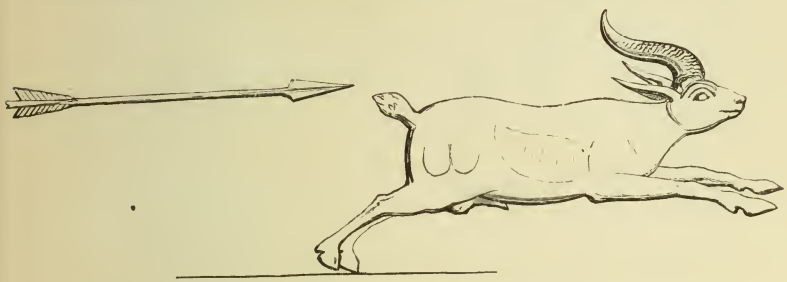


No. II. Portion of net, showing the arrangement of the meshes and the pegs (Koyunjik).

man, but the two ends were sloped gently to the ground. Beaters, probably accompanied by dogs, roused the game in the coverts, which was then driven by shouts and barkings towards the place where the net was set. If it once entered within the two extremities of the net (*a b* in woodcut No. I.), its destruction was certain; for the beaters, following on its

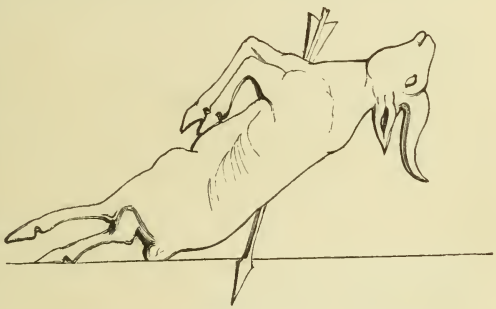
traces, occupied the space by which it had entered, and the net itself was not sufficiently visible for the deer to rise at it and clear it by a leap.

In the chase of the ibex or wild goat, horsemen were employed to discover the animals, which were generally found in herds, and to drive them towards the sportsman, who waited in



No. I. Hunted ibex flying at full speed.

ambush until the game appeared within bowshot.[5] An arrow was then let fly at the nearest or the choicest animal, which often fell at the first discharge. The sport was tame compared with many other kinds, and was probably not much affected by the higher orders.



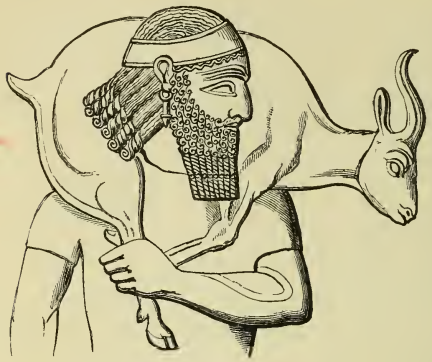
No. II. Ibex transfixed with arrow—falling.

The chase of the gazelle is not shown on the sculptures. In modern times they are taken by the greyhound and the falcon, separately or in conjunction, the two being often trained to hunt together.[1] They are somewhat difficult to run down with

[5] On the slab from which the ibexes represented above are taken, the king and an attendant are seen crouching as the herd approaches, in such a way as to make it evident that the intention was to represent them as lying in ambush.

[1] See Mr. Layard's *Nineveh and Babylon*, pp. 481-483.

dogs only, except immediately after they have drunk water in hot weather.[2] That the Assyrians sometimes captured them, appears by a hunting-scene which Mr. Layard discovered at Khorsabad, where an attendant is represented carrying a gazelle on his shoulders, and holding a hare in his right hand.[3] As gazelles are very abundant both in the Sinjar country and in the district between the Tigris and the Zagros range,[4] we may suppose that the Assyrians sometimes came upon them unawares, and transfixed them with their arrows before they could make their escape. They may also have taken them in nets, as they were accustomed to take deer;[5] but we have no evidence that they did so.



Sportsman carrying a gazelle (Khorsabad).

The hare is seen very commonly in the hands of those who attend upon the huntsmen.[6] It is always represented as very small in proportion to the size of the men, whence we may perhaps conclude that the full-grown animal was less esteemed than the leveret. As the huntsmen in these representations have neither nets nor dogs, but seem to obtain their game solely by the bow, we must presume that they were expert enough to strike the hare as it ran.

There is no difficulty in making such a supposition as this, since the Assyrians have left us an evidence of their skill as marksmen, which implies even greater dexterity. The game which they principally sought in the districts where they occa-

[2] See Mr. Layard's *Nineveh and Babylon*, p. 482, note.

[3] *Monuments of Nineveh*, 2nd Series, Pl. 32. The slab itself is in the British Museum.

[4] *Nineveh and Babylon*, pp. 130, 268, &c.

[5] Supra, p. 520.

[6] Botta, *Monument de Ninive*, vol. ii. Pls. 108, 110, and 111; Layard, *Monuments*, 2nd Series, Pl. 32. The hare is always carried by the hind legs, exactly as we carry it. See the representation on p. 226 of this volume.

sionally killed the hare and the gazelle seems to have been the partridge; and this game they had to bring down when upon the wing. We see the sportsmen in the sculptures aiming their arrows at the birds as they mount into the air, and in one instance we observe one of the birds in the act of falling to the ground, transfixed by a well-aimed shaft.[7] Such skill is not uncommon among savage hunting tribes, whose existence depends on the dexterity with which they employ their weapons; but it is rarely that a people which has passed out of this stage and hunts for sport rather than subsistence, retains its old expertness.

Sportsman shooting (Khorsabad).

Hunting the hare with dogs was probably not very common, as it is only in a single instance that the Assyrian remains exhibit a trace of it. On one of the bronze dishes discovered by Mr. Layard at Nimrud may be seen[8] a series of alternate dogs and hares, which shows that coursing was not unknown to the Assyrians. The dog is of a kind not seen elsewhere in the remains of Assyrian art. The head bears a resemblance to that of the wolf; but the form generally is that

Greyhound and hare, from a bronze bowl (Nimrud).

of a coarse greyhound, the legs and neck long, the body slim, and the tail curled at the end; offering thus a strong contrast to the ordinary Assyrian hound, which has been already represented more than once.[9]

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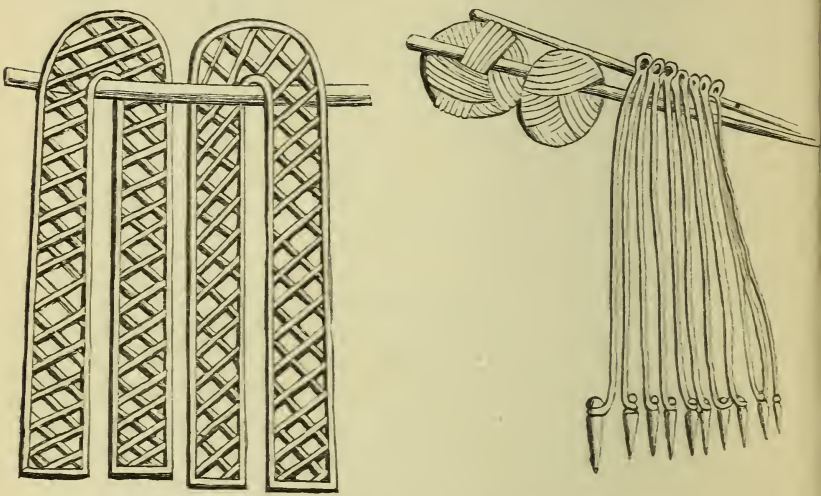
7 Botta, Pl. 111. This bird has been already figured. (See p. 228.)

8 The dish is in the British Museum. A representation of it is given by Mr. Layard in his *Monuments*, 2nd Series, Pl. 64.

9 Supra, pp. 510, 516, 517, and 518.

Nets may sometimes have been employed for the capture of small game, such as hares and rabbits, since we occasionally see beaters or other attendants carrying upon poles, which they hold over their shoulders, nets of dimensions far too small for them to have been used in the deer-hunts, with balls of string and pegs wherewith to extend them. The nets in this case are



Nets, pegs, and balls of string (Koyunjik).

squared at the ends, and seem to have been about eight or nine feet long, and less than a foot in height. They have large meshes, and, like the deer-nets, are bordered both at top and bottom with a strong cord, to which the net-work is attached. Like the classical *ἐνόδια*, they were probably placed across the runs of the animals, which, being baffled by them and turned from their accustomed tracks, would grow bewildered and fall an easy prey to the hunters. Or, possibly, several of them may have been joined together, and a considerable space may then have been enclosed, within which the game may have been driven by the beaters.

The chase of these three weak and timid animals, the gazelle, the hare, and the partridge, was not regarded as worthy of the monarch. When the king is represented as present, he takes

no part in it, but merely drives in his chariot through the woods where the sportsmen are amusing themselves.[1] Persons, however, of a good position, as appears from their dress and the number of their attendants, indulged in the sport, more especially eunuchs, who were probably those of the royal household. It is not unlikely that the special object was to supply the royal table with game.[2]

The Assyrians do not seem to have had much skill as fishermen. They were unacquainted with the rod, and fished by

No. I. Man fishing (Nimrud).

means of a simple line thrown into the water, one end of which was held in the hand. No float was used, and the bait must consequently have sunk to the bottom, unless prevented from so doing by the force of the stream. This method of fishing

[1] Botta, Pls. 108 to 114. These sculptures were all in one room, and form a series from which two slabs only are missing.

[2] Hares and partridges were among the delicacies with which Sennacherib's servants were in the habit of furnishing his table, as we may gather from the procession of attendants represented at Koyunjik in the inclined passage. (See Layard, *Monuments*, 2nd Series, Pl.9, and compare *Nineveh and Babylon*, p. 338.)

was likewise known and practised in Egypt,[3] where, however, it was far more common to angle with a rod.[4] Though Assyrian fish-hooks have not been found, there can be no doubt that that invention was one with which they were acquainted, as were both the Egyptians[5] and the early Chaldæans.[6]

Fishing was carried on both in rivers and in stews or ponds. The angler sometimes stood or squatted upon the bank; at

No. II. Man fishing (Koyunjik).

other times, not content with commanding the mere edge of the water, he plunged in, and is seen mid-stream, astride upon an inflated skin, quietly pursuing his avocation. Occasionally he improved his position by mounting upon a raft, and, seated at the stern, with his back to the rower, threw out his line and

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[3] Wilkinson, *Ancient Egyptians*, 1st Series, vol. iii. p. 53, Pl. 342.
[4] Ibid. pp. 52-54. [5] Ibid. p. 54. [6] See above, p. 99.

drew the fish from the water.[7] Now and then the fisherman was provided with a plaited basket, made of rushes or flags, which was fastened round his neck with a string, and hung at his back, ready to receive the produce of his exertions.

It does not appear that angling was practised by the Assyrians in the way that the monuments show it to have been practised in Egypt, as an amusement of the rich.[8] The fishermen are always poorly clothed, and seem to have belonged to the class which worked for its living. It is remarkable that we

Man fishing, seated on skin (Koyunjik).

do not anywhere in the sculptures see nets used for fishing; but perhaps we ought not to conclude from this that they were never so employed in Assyria.[9] The Assyrian sculptors represented only occasionally the scenes of common everyday life; and we are seldom justified in drawing a negative conclusion as to the peaceful habits of the people on any point from the mere fact that the bas-reliefs contain no positive evidence on the subject.

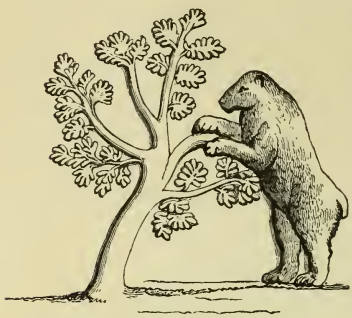
A few other animals were probably, but not certainly, chased by the Assyrians, as especially the ostrich and the bear. The gigantic bird, which remained in Mesopotamia as late as the

[7] See the woodcut in Mr. Layard's *Nineveh and Babylon*, p. 231.

[8] Wilkinson, p. 52, Pl. 341. Compare his remarks, pp. 53 and 54.

[9] The use of nets for fishing seems to have been a very early invention. Sophocles joins it with ship-building, ploughing, trap-making, and horse-breaking. (*Antig.* 347.) Solomon certainly knew of the practice (Eccl. ix. 12), as did Homer (*Odyss.* xxii. 384-386). It was of great antiquity in Egypt.

time of Xenophon,[10] was well known to the Assyrian artists, who could scarcely have represented it with so much success,[1] unless its habits had been observed and described by hunters.[2] The bear is much less frequent upon the remains than the ostrich; but its occurrence and the truthfulness of its delineation where it occurs, indicate a familiarity which may no doubt be due to other causes, but is probably traceable to the intimate knowledge acquired by those who hunted it.



Bear standing, from a bronze bowl (Nimrud).

Of the other amusements and occupations of the Assyrians our knowledge is comparatively scanty; but some pages may be here devoted to their music, their navigation, their commerce, and their agriculture. On the first and second of these a good deal of light is thrown by the monuments, while some interesting facts with respect to the third and fourth may be gathered both from this source and also from ancient writers.

That the Babylonians, the neighbours of the Assyrians, and, in a certain sense, the inheritors of their empire, had a passion for music, and delighted in a great variety of musical instruments, has long been known and admitted. The repeated mention by Daniel, in his third chapter, of the "cornet, flute, harp, sackbut, psaltery, dulcimer, and all kinds of music"[3]—or, at any rate, of a number of instruments for which those terms were once thought the best English equivalents—has familiarised us with the fact, that in Babylonia, as early as the sixth century B.C., musical instruments of many different kinds were in use. It is also apparent from the Book of Psalms, that a variety of instruments were employed by the Jews.[4] And we know that in

[10] Xen. *Anab.* i. 5, § 2.

[1] See the woodcuts on p. 228.

[2] The chase of the ostrich seems to be mentioned in the inscriptions of Asshur-izir-pal. See below, ch. ix.

[3] Verses 5, 7, 10, and 15.

[4] See especially Ps. cl., where the trumpet, psaltery, harp, timbrel, pipe(?),

Egypt as many as thirteen or fourteen different kinds were common.[5] In Assyria, if there was not so much variety as this, there were at any rate eight or nine quite different sorts, some stringed, some wind, some merely instruments of percussion. In the early sculptures, indeed, only two or three musical instruments are represented. One is a kind of harp, held between the left arm and the side, and played with one hand by means of a quill or *plectrum*. Another is a lyre, played by the hand; while a third is apparently a cymbal. But in the later times we see—besides these instruments—a harp of a different make played with both hands, two or three kinds of lyre, the double pipe, the guitar or cithern, the tambourine, a nameless instrument, and more than one kind of drum.

Ancient Assyrian harp and harper (Nimrud).

The harp of the early ages was a triangular instrument, consisting of a horizontal board which seems to have been about three feet in length, an upright bar inserted into one end of the board, commonly surmounted by an imitation of the human hand, and a number of strings which crossed diagonally from the board to the bar, and, passing through the

organ (?), and cymbal are all mentioned together. Compare Ps. xxxiii. 2; xcii. 3; xcviii. 5, 6, &c.

[5] Wilkinson, *Ancient Egyptians*, 1st Series, vol. ii. pp. 253-327. The instruments enumerated are the *darabooka* drum, cymbals, cylindrical maces, the trumpet, the long drum, the harp, the lyre, the guitar, the flute, the single and double pipe, the tambourine, and the sistrum.

latter, hung down some way, terminating in tassels of no great size. The strings were eight, nine, or ten in number, and (apparently) were made fast to the board, but could be tightened or relaxed by means of a row of pegs inserted into the upright bar, round which the strings were probably wound. No difference is

Later Assyrian harps and harpers (Koyunjik).

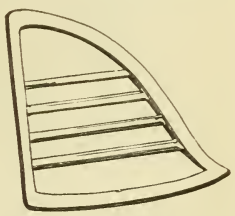
apparent in the thickness of the strings; and it would seem therefore that variety of tone was produced solely by difference of length. It is thought that this instrument must have been suspended round the player's neck.[6] It was carried at the left side,

[6] Layard, *Nineveh and its Remains*, vol. ii. p. 412. The conjecture is probable, though no means of suspension are seen on the sculptures.

and was played (as already observed) with a quill or *plectrum* held in the right hand, while the left hand seems to have been employed in pressing the strings so as to modify the tone, or stop the vibrations, of the notes. The performers on this kind of harp, and indeed all other Assyrian musicians, are universally represented as standing while they play.

The harp of later times was constructed, held, and played differently. It was still triangular,[7] or nearly so; but the frame now consisted of a rounded and evidently hollow[1] sounding-board, to which the strings were attached with the help of pegs, and a plain bar whereto they were made fast below, and from which their ends depended like a fringe. The number of strings was greater than in the earlier harp, being sometimes as many as seventeen. The instrument was carried in such a way that the strings were perpendicular and the bar horizontal, while the sounding-board projected forwards at an angle above the player's head. It was played by the naked hand without a *plectrum;* and both hands seem to have found their employment in pulling the strings.

Three varieties of the lyre are seen in the Assyrian sculptures. One of them is triangular, or nearly so, and has only four strings, which, being carried from one side of the triangle to the other, parallel to the base, are necessarily of very unequal length. Its frame is apparently of wood, very simple, and entirely devoid of ornament. This sort of lyre has been found only in the latest sculptures.[2]



Triangular lyre (Koyunjik).

Another variety nearly resembles in its general shape the

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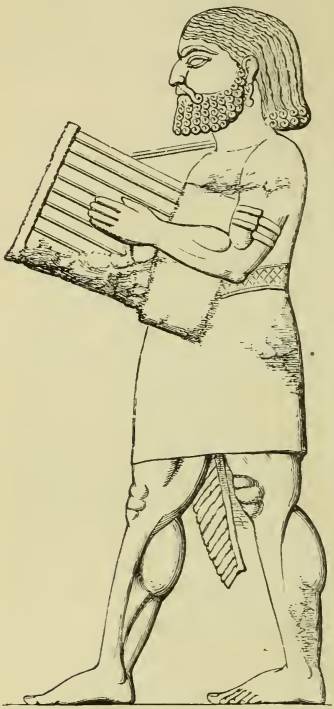
[7] The Egyptians had a triangular harp (Wilkinson, p. 280), which is not unlike the Assyrian. And St. Jerome says that the Hebrew harp (כִּנּוֹר) resembled the Greek *delta*, which is an argument that it also was of this shape.

[1] The board is commonly pierced with two or more holes, like the sounding-board of a guitar.

[2] The above representation is from a slab discovered by Mr. Loftus in the palace of Asshur-bani-pal, the son of Esar-haddon. It is the only instance of a triangular lyre in the sculptures, unless the lyres of the so-called *Jewish* captives in the British Museum are intended to be triangular, which is uncertain. See below, p. 540.

lyre of the Egyptians.[3] It has a large square bottom or sounding-board,[4] which is held, like the Egyptian, under the left elbow, two straight arms only slightly diverging, and a plain cross-bar at top. The number of strings visible in the least imperfect representation is eight; but, judging by the width of the instrument, we may fairly assume that the full complement was nine or ten. The strings run from the cross-bar to the sounding-board, and must have been of a uniform length. This lyre was played by both hands, and for greater security was attached by a band passing round the player's neck.



Lyre with ten strings (Khorsabad).

The third sort of lyre was larger than either of the others, and considerably more elaborate. It had probably a sounding-board at bottom, like the lyre just described, though this, being carried under the left elbow, is concealed in the representations. Hence there branched out two curved arms, more or less ornamented, which were of very unequal length; and these were joined together by a cross-bar, also curved, and projecting considerably beyond the end of the longer of the two arms. Owing to the inequality of the arms, the cross-bar sloped at an angle to the base, and the strings, which passed from the one to the other, consequently differed in length. The number of the strings in this lyre seems to have been either five or seven.

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[3] Wilkinson, vol. ii. p. 291, Woodcut No. 217.

[4] In some of the classical lyres the two arms were joined at the base, and there was no tortoise or other sounding-board below them. (Bianchini, *De trib. gen. instrument.* Tab. iv.)

The Assyrian guitar is remarkable for the small size of the hollow body or sounding-board, and the great proportionate length of the neck or handle. There is nothing to show what was the number of the strings, nor whether they were stretched by pegs and elevated by means of a bridge. Both hands seem to be employed in playing the instrument, which is held across the chest in a sloping direction, and was probably kept in place by a riband or strap passed round the back.[5]

Lyres, with five and seven strings (Koyunjik).

It is curious that in the Assyrian remains, while the double pipe is common, we find no instance at all either of the flute or of the single pipe. All three were employed in Egypt, and occur on the monuments of that country frequently;[6] and though among the Greeks and Romans the double pipe was more common than the single one, yet the single pipe was well known, and its employment was not unusual. The Greeks regarded the pipe as altogether Asiatic, and ascribed its invention to Marsyas the Phrygian,[7] or to Olympus, his

[5] Such a strap is occasionally seen in the Egyptian representations. (Wilkinson, p. 302, Woodcut No. 223.)

[6] Wilkinson, pp. 307-312; and compare pp. 232-237.

[7] Athen. *Deipnosoph.* iv. 25.

disciple.[8] We may conclude from this that they at any rate learnt the invention from Asia; and in their decided preference of the double over the single pipe we may not improbably have a trace of the influence which Assyria exercised over Asiatic, and thus even over Greek, music.

Guitar or tamboura (Koyunjik).

Player on the double pipe (Koyunjik).

The Assyrian double pipe was short, probably not exceeding ten or twelve inches in length.[9] It is uncertain whether it was really a single instrument consisting of two tubes united by a common mouth-piece, or whether it was not composed of two quite separate pipes, as was the case with the double pipes of the Greeks and Romans.

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[8] Plutarch. *De Musicâ*, p. 1135, F.

[9] The Egyptian pipes seem to have varied from seven to fifteen or eighteen inches. (Wilkinson, p. 308.) The classical were probably even longer. In Phœnicia a very short pipe was used, which was called *gingrus*. (Athen. *Deipn.* iv. p. 174, F.)

The two pipes constituting a pair seem in Assyria to have been always of the same length, not, like the Roman "right" and "left pipes," of unequal length, and so of different pitches.[10] They were held and played, like the classical, one with either hand of the performer. There can be little doubt that they were in reality quite straight, though sometimes they have been awkwardly represented as crooked by the artist.

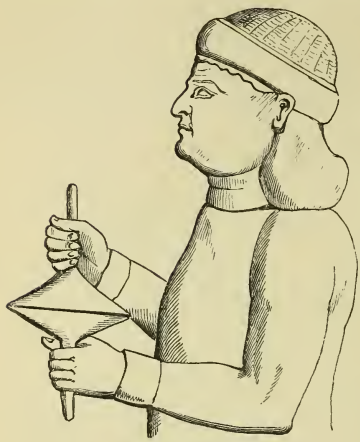
Tambourine player, and other musicians (Koyunjik).

The tambourine of the Assyrians was round, like that in common use at the present day, not square, like the ordinary Egyptian.[11] It seems to have consisted simply of a skin stretched on a circular frame, and to have been destitute altogether of the metal rings or balls which produce the jingling sound of the modern instrument. It was held at bottom by the left hand in a perpendicular position, and was struck at the side with the fingers of the right.

[10] See Pliny, *H. N.* xvi. 36.

[11] Wilkinson, pp. 235, 240, and 329.

Assyrian cymbals closely resembled those in common use throughout the East at the present day.[12] They consisted of two hemispheres of metal, probably of bronze, running off to a point, which was elongated into a bar or handle. The player grasped a cymbal in each hand, and either clashed them together horizontally, or else, holding one cup-wise in his left, brought the other down upon it perpendicularly with his right.



Eunuch playing on the cymbals (Koyunjik).

Two drums are represented on the Assyrian sculptures. One is a small instrument resembling the *tubbul* now frequently used by Eastern dancing-girls.[13] The other is of larger size, like the *tubbul* at top, but descending gradually in the shape of an inverted cone, and terminating almost in a point at bottom. Both were carried in front, against the stomach of the player, attached, apparently, to his girdle; and both were played in the same way, namely, with the fingers of the open hands on the top.[14]

A few instruments carried by musicians are of an anomalous appearance, and do not admit of identification with any known species. One, which is borne by a musician in a processional scene belonging to the time of Sennacherib, resembles in shape a bag turned upside down. By the manner in which it is held, we may conjecture that it was a sort of rattle—a hollow square box of wood or metal, containing stones or other hard substances which produced a jingling noise when shaken. But the purpose

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[12] They are probably identical with the "high-sounding cymbals" (צִלְצְלֵי תְרוּעָה) of Scripture. The "loud cymbals" (צִלְצְלֵי שָׁמַע) were merely castanets.

[13] Layard, *Nineveh and Babylon*, p. 455.

[14] For representations of these drums, see opposite.

of the semicircular bow which hangs from the box is difficult to explain, unless we suppose that it was merely a handle by which to carry the instrument when not in use. Rattles of different kinds are found among the musical instruments of Egypt;[1] and one of them consists of a box with a long handle attached to it.

Assyrian *tubbuls*, or drums (Koyunjik).

The jingling noise produced by such instruments may have corresponded to the sound now emitted by the side rings of the tambourine.

Another curious-looking instrument occurs in a processional scene of the time of Asshur-bani-pal, which has been compared to the modern *santour*, a sort of dulcimer.[2] It consisted (apparently) of a number of strings, certainly not fewer

[1] Wilkinson, vol. ii. pp. 238, 322-327, &c. [2] Layard, *Nineveh and Babylon*, p. 454.

than ten, stretched over a hollow case or sounding-board. The musician seems to have struck the strings with a small bar or hammer held in his right hand, while, at the same time he made some use of his left hand in pressing them so as to produce the right note. It is clear that this instrument must have been suspended round the neck, though the Assyrian artist has omitted to represent the belt which kept it in place.

Musician playing the dulcimer (Koyunjik).

In addition to all these various instruments, it is possible that the Assyrians may have made use of a sort of horn. An object is represented on a slab of Sennacherib's which is certainly either a horn or a speaking-trumpet. It is carried by one of the supervisors of the works in a scene representing the conveyance of a colossal bull to its destination. In shape it no doubt resembles the modern speaking-trumpet, but it is almost equally near to the *tuba* or military trumpet of the Greeks and Romans. This will appear sufficiently on a comparison of the two representations opposite, one of which is taken from Mr. Layard's representation of Sennacherib's slab,[3] while the other is from a sculpture on the column of Trajan. As we have no mention of the speaking-trumpet in any ancient writer, as the shape of the object under consideration is that of a known ancient instrument of music,

[3] See *Monuments of Nineveh*, 2nd Series, Pl. 15. The original slab is in the British Museum, but in so bad a condition that the trumpet is now scarcely visible.

and as an ordinary horn would have been of great use in giving signals to workmen engaged as the labourers are upon the sculpture, it seems best to regard the object in question as such a horn—an instrument of great power, but of little compass—more suitable therefore for signal-giving than for concerts.[4]

No. I. Roman trumpet (Column of Trajan).

No. II. Assyrian trumpet (Layard).

No. III. Portion of an Assyrian trumpet.

Passing now from the instruments of the Assyrians to the general features and character of their music, we may observe, in the first place, that while it is fair to suppose them acquainted with each form of the triple symphony,[5] there is only evidence that they knew of two forms out of the three—viz. the harmony of instruments, and that of instruments and voices in combination. Of these two they seem greatly to have preferred the concert of instruments without voices; indeed, one instance alone shows that they were not wholly ignorant of the more complex harmony.[6] Even this leaves it doubtful whether they themselves practised it; for the singers and musicians represented as uniting their efforts are not Assyrians, but Susianians, who come out to greet their conquerors, and do honour to the new sovereign who has been imposed on them, with singing, playing, and dancing.

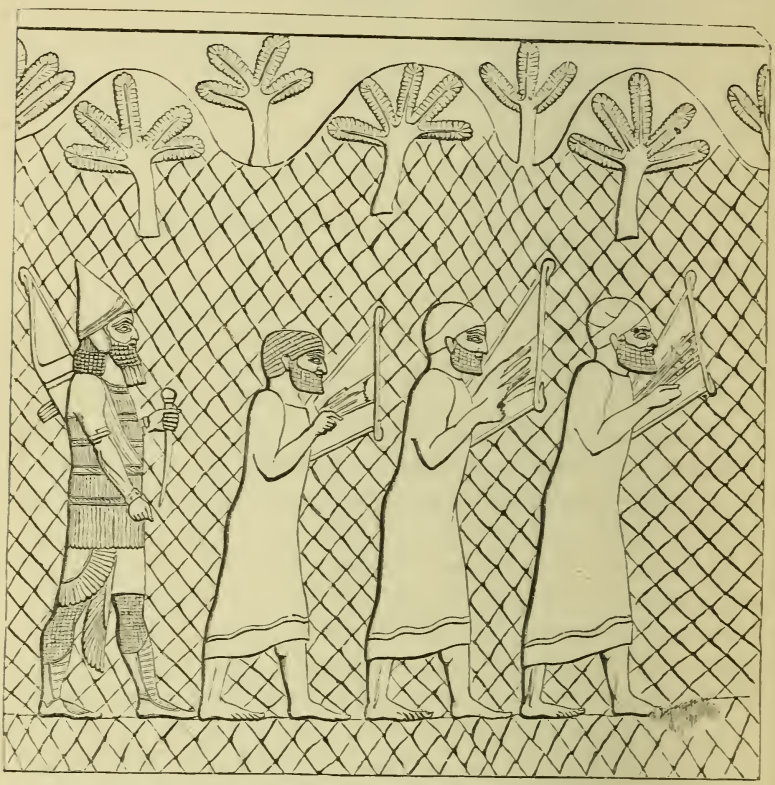
Assyrian bands were variously composed. The simplest consisted of two harpers. A band of this limited number seems

[4] The trumpet was employed by the Greeks and Romans, and also by the Jews, chiefly for signals. (See *Dict. of Gr. and Rom. Antiq.* ad voc. TUBA, and *Biblical Dictionary*, ad voc. CORNET.)

[5] See Rollin, *Ancient History*, vol. ii. p. 254.

[6] See *Nineveh and Babylon*, p. 455. It may perhaps be thought that the scene where the king is represented as pouring a libation over four dead lions (supra, p. 515) furnishes a second instance of the combination of vocal with instrumental music. But a comparison of that scene with parallel representations on a larger scale in the Nimrud series convinces me that it is merely by a neglect of the artist that the two musicians are given only one harp.

to have been an established part of the religious ceremonial on the return of the monarch from the chase, when a libation was poured over the dead game. The instrument in use on these occasions was the antique harp, which was played, not with the hand, but with the plectrum. A similar band appears



Captives playing on lyres.

on one occasion in a triumphal return from a military expedition belonging to the time of Sennacherib.[7]

In several instances we find bands of three musicians. In one case all three play the lyre. The musicians here are certainly captives, whom the Assyrians have borne off from their

[7] Layard, *Monuments of Nineveh*, 1st Series, Pl. 73.

own country. It has been thought that their physiognomy is Jewish,[8] and that the lyre which they bear in their hands may represent that kind of "harp" which the children of the later Captivity hung up upon the willows when they wept by the rivers of Babylon.[9] There are no sufficient grounds, however, for this identification. The lyre may be pronounced foreign, since it is unlike any other specimen; but its ornamentation with an animal head is sufficient to show that it is not Jewish.[10] And the Jewish *kinnor* was rather a harp than a lyre, and had certainly more than four strings.[11] Still, the employment of captives as musicians is interesting, though we cannot say that the captives are Jews. It shows us that the Assyrians, like the later Babylonians,[12] were in the habit of "requiring" music from their prisoners, who, when transported into a "strange land," had to entertain their masters with their native melodies.

Another band of three exhibits to us a harper, a player on the lyre, and a player on the double pipe.[13] A third shows a harper, a player on the lyre, and a musician whose instrument is uncertain. In this latter case it is quite possible that there may originally have been more musicians than three, for the sculpture is imperfect, terminating in the middle of a figure.[14]

Bands of four performers are about as common as bands of three. On an obelisk belonging to the time of Asshur-izir-pal we see a band composed of two cymbal-players and two performers on the lyre. A slab of Sennacherib's exhibits four harpers arranged in two pairs, all playing with the plectrum on the antique harp.[1] Another of the same date, which is in-

Lyre on Hebrew coin.

[8] The authorities at our National Collection at one time entitled the bas-relief in question "*Jewish* captives playing on lyres."

[9] Ps. cxxxvii. 1, 2.

[10] It is well known that the Jews regard the second commandment as forbidding all artistic representation of natural objects.

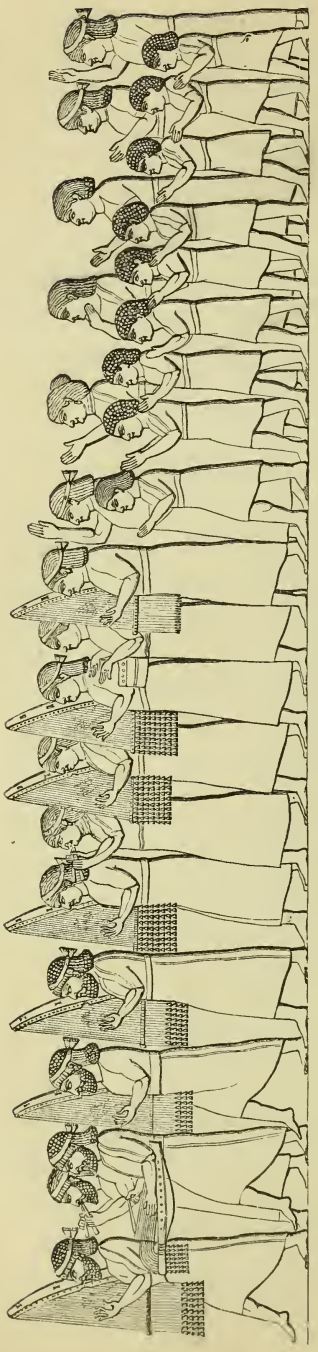
[11] The authorities vary between ten strings and forty-seven. (Smith's *Biblical Dictionary*, vol. i. p. 758.) Hebrew coins, however, represent lyres with as few strings as *three*.

[12] Ps. cxxxvii. 3, 4.

[13] I am acquainted with this sculpture only through one of Mr. Boutcher's admirable drawings in the British Museum Collection.

[14] This is also the case in a sculpture, where two musicians play the lyre, and a third had probably the same instrument. (See Botta, *Monument de Ninive*, vol. i. Pl. 67.)

[1] Both this and the obelisk sculpture are now in the British Museum.



Band of musicians.

complete, shows us a tambourine-player, a cymbal-player, a player on the nondescript instrument which has been called a sort of rattle, and another whose instrument cannot be distinguished. In a sculpture of a later period, which is represented above,[2] we see a band of four, composed of a tambourine-player, two players on two different sorts of lyres, and a cymbal-player.

It is not often that we find representations of bands containing more than four performers. On the sculptures hitherto discovered there seem to be only three instances where this number was exceeded. A bas-relief of Sennacherib's showed five players, of whom two had tambourines; two, harps of the antique pattern; and one, cymbals.[3] Another, belonging to the time of his grandson, exhibited a band of seven, three of whom played upon harps of the later fashion, two on the double pipe, one on the guitar, and one on the long drum with the conical bottom.[4] Finally, we have the remarkable scene represented on this page, a work of the same date, where no fewer than twenty-

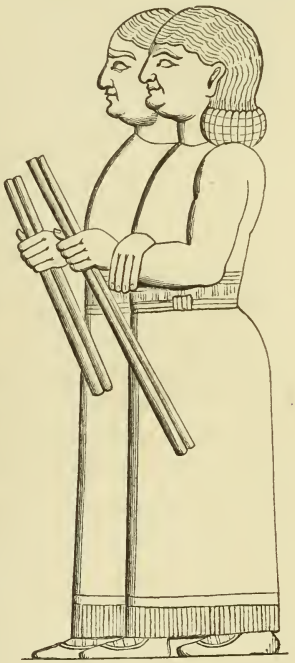
[2] Supra, p. 535.

[3] This sculpture is also known to me only through Mr. Boutcher's representation of it.

[4] A portion of this bas-relief, containing two musicians only, is exhibited in the Museum, and has been represented above, page 493. Mr. Boutcher's drawing, made on the spot, shows that there were actually on the relief as discovered at least five other musicians.

six performers are seen uniting their efforts. Of these eleven are players on instruments, while the remaining fifteen are vocalists. The instruments consist of seven harps, two double pipes, a small drum or *tubbul*, and the curious instrument which has been compared to the modern *santour*. The players are all men, six out of the eleven being eunuchs. The singers consist of six women and nine children of various ages, the latter of whom seem to accompany their singing, as the Hebrews and Egyptians sometimes did,[5] with clapping of the hands. Three out of the first four musicians are represented with one leg raised, as if dancing to the measure.[6]

Bands in Assyria had sometimes, though not always, time-keepers or leaders, who took the direction of the performance. These were commonly eunuchs, as indeed were the greater number of the musicians. They held in one hand a double rod or wand, with which most probably they made their signals, and stood side by side facing the performers.



Time-keepers (Koyunjik).

The Assyrians seem to have employed music chiefly for festive and religious purposes. The favourite instrument in the religious ceremonies was the antique harp, which continued in use as a sacred instrument from the earliest to the latest times.[7] On festive occasions the lyre was preferred, or a mixed band with a variety of instruments. In the quiet of domestic life the monarch and his sultana were entertained with concerted music played by a large number of performers; while in processions and pageants, whether of a

[5] Ps. xlvii. 1; Herod. ii. 60; Wilkinson, *Ancient Egyptians*, 1st Series, vol. ii. p. 326.

[6] See the representations on pages 530 and 538.

[7] See *Monuments of Nineveh*, 1st Series, Pls. 12 and 17, and compare the woodcut, supra, p. 515.

civil or of a military character, bands were also very generally employed, consisting of two, three, four, five, or possibly more,[8] musicians. Cymbals, the tambourine, and the instrument which has been above regarded as a sort of rattle, were peculiar to these processional occasions: the harp, the lyre, and the double pipe had likewise a place in them.

In actual war, it would appear that music was employed very sparingly, if at all, by the Assyrians. No musicians are ever represented in the battle-scenes; nor are the troops accompanied by any when upon the march. Musicians are only seen conjoined with troops in one or two marching processions, apparently of a triumphal character. It may consequently be doubted whether the Assyrian armies, when they went out on their expeditions, were attended, like the Egyptian and Roman armies,[9] by military bands. Possibly, the musicians in the processional scenes alluded to belong to the court rather than to the camp, and merely take part as civilians in a pageant, wherein a share is also assigned to the soldiery.

In proceeding, as already proposed,[10] to speak of the navigation of the Assyrians, it must be at once premised that it is not as mariners, but only as fresh-water sailors, that they come within the category of navigators at all. Originally an inland people, they had no power, in the earlier ages of their history, to engage in any but the secondary and inferior kind of navigation; and it would seem that, by the time when they succeeded in opening to themselves through their conquests a way to the Mediterranean and the Indian Ocean, their habits had become so fixed in this respect that they no longer admitted of change. There is satisfactory evidence which shows that they left the navigation of the two seas at the two extremities of their empire to the subject nations—the Phœnicians and the Babylonians,[11] contenting themselves with the profits without

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[8] The fragmentary character of the sculptures renders it often doubtful whether the actual number of the performers may not have considerably exceeded the number at present visible.

[9] Wilkinson, vol. ii. pp. 260, 261; Liv. i. 43; Sueton. *Vit. Jul.* § 32; Amm. Marc. xxiv. 4; &c.

[10] Supra, p. 528.

[11] The evidence is not merely negative. It is positively stated by Herodotus that in the time of Assyrian

sharing the dangers of marine voyages, while their own attention was concentrated upon their two great rivers—the Tigris and the Euphrates, which formed the natural line of communication between the seas in question.

The navigation of these streams was important to the Assyrians in two ways. In the first place it was a military necessity that they should be able, *readily and without delay*, to effect the passage of both of them, and also of their tributaries, which were frequently too deep to be forded.[12] Now from very early times it was probably found tolerably easy to pass an army over a great river by swimming, more especially with the aid of inflated skins, which would be soon employed for the purpose. But the *matériel* of the army—the provisions, the chariots, and the siege machines—was not so readily transported, and indeed could only be conveyed across deep rivers by means of bridges, rafts, or boats. On the great streams of the Tigris and Euphrates, with their enormous spring floods, no bridge, in the ordinary sense of the word, is possible.[13] Bridges of boats are still the only ones that exist on either river below the point at which they issue from the gorges of the mountains.[14] And these would be comparatively late inventions, long subsequent to the employment of single ferry boats. Probably the earliest contrivance for transporting the chariots, the stores, and the engines across a river was a raft, composed hastily of the trees and bushes growing in the neighbourhood of the stream, and rendered capable of sustaining a considerable weight by the attachment to it of a number of inflated skins. A representation of such a raft, taken from a slab of Sennacherib, has been

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ascendancy the carrying trade of the eastern Mediterranean was in the hands of the Phœnicians (Herod. i. 1); and Isaiah (xliii. 14) implies that the Chaldæans of his time retained the trade of the Persian Gulf.

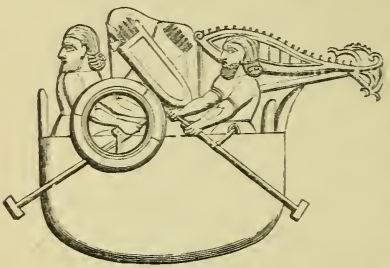
[12] Herod. v. 52; and supra, pp. 185 and 188.

[13] If even the Araxes (*Aras*) might be truly said in Virgil's time to "abhor a bridge" ("pontem indignatus Araxes," Virg. *Æn.* viii. 728), much more would these two mightiest streams of Western Asia have in the early ages defied the art of bridge-building.

[14] The lowest bridge over the Tigris is that at Diarbekr, a stone structure of ten arches; the lowest on the Euphrates is, I believe, that at *Eghin*. Mr. Berrington, a recent traveller in the East, informs me that there is a ruined bridge, which once crossed the Tigris, a little below Jezireh.

already given.[1] Rafts of this kind are still largely employed in the navigation of the Mesopotamian streams,[2] and, being extremely simple in their construction, may reasonably be supposed to have been employed by the Assyrians from the very foundation of their empire.

To these rafts would naturally have succeeded boats of one kind or another. As early as the time of Tiglath-Pileser I. (ab. B.C. 1120) we find a mention of boats as employed in the passage of the Euphrates.[3] These would probably be of the kind described by Herodotus,[4] and represented on one of the most ancient bas-reliefs—round structures, like the Welsh coracles, made of wickerwork and covered with skins, smeared over with a coating of bitumen. Boats of this construction were made of a considerable size. The one above represented contains a chariot and is navigated by two men. In the later sculptures the number of navigators is raised to four, and the boats carry a heavy load of stone or other material.[5] The mode of propulsion is curious and very unusual. The rowers sit at the stem and stern, facing each other, and, while those at the stem pull, those at the stern must have pushed, as Herodotus tells us that they did.[6] The make of the oars is also singular. In the earlier sculptures they are short poles terminating in a head, shaped like a small axe or hammer;[7]



Assyrian coracle (Nimrud).

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[1] See p. 338.

[2] Layard, *Nineveh and its Remains*, vol. ii. pp. 96-98; *Nineveh and Babylon*, p. 465; Loftus, *Chaldæa and Susiana*, p. 4.

[3] *Inscription of Tiglath-Pileser I.*, pp. 46, 47. Sir H. Rawlinson translates the passage—"The men of their armies, who had fled before the face of the valiant servants of my lord Asshur, crossed over the Euphrates; in *boats covered with bitumen skins* I crossed the Euphrates after them." Mr. Fox Talbot renders the last clause—"I crossed the river after them in my boats formed of skins."

[4] Herod. i. 194.

[5] *Monuments of Nineveh*, 2nd Series, Pl. 12.

[6] Herod. l. s. c.: Ὁ μὲν ἔσω ἕλκει τὸ πλῆκτρον, ὁ δὲ ἔξω ὠθέει.

[7] *Monuments*, 1st Series, Pls. 15 and 16. See also the last woodcut.

in the later, below this axe-like appendage, they have a sort of curved blade, which is, however, not solid, but perforated, so as to form a mere framework, which seems to require filling up.

Common oar. (Time of Sennacherib.)

Besides these round boats, which correspond closely with the *kufas* in use upon the Tigris and Euphrates at the present day,[8] the Assyrians employed for the passage of rivers, even in very early times, a vessel of a more scientific construction. The early bas-reliefs exhibit to us, together with the *kufa*, a second and much larger vessel, manned with a crew of seven men—a helmsman and six rowers, three upon either side[9]—and capable of conveying across a broad stream two chariots at a time,[10] or a chariot and two or three passengers. This vessel appears to have been made of planks. It was long, and comparatively narrow. It had a flattish bottom, and was rounded off towards the stem and stern, much as boats are rounded off towards the bows at the present day. It did not possess either mast or sail, but was propelled wholly by oars, which were of the same shape as those used anciently by the rowers in the round boats. In the steersman's hand is seen an oar of a different kind. It is much longer than the rowing oars, and terminates in an oval blade, which would have given it considerable power in the water. The helmsman steered with both hands; and it seems that his oar was lashed to an upright post near the stern of the vessel.[11]

Steering oar. (Time of Asshur-izir-pal.)

[8] Chesney, *Euphrates Expedition*, vol. ii. p. 640; Ker Porter, *Travels*, vol. ii. p. 260; Layard, *Nineveh and its Remains*, vol. ii. p. 381.

[9] Layard, *Monuments*, 1st Series, Pl. 15. Only three of the rowers are visible; but it is, I think, certain that there must have been three others corresponding to them on the other side of the vessel. For a representation of this kind of boat, see below, p. 549, No. I.

[10] Ibid. Pl. 16.

[11] Layard, *Nineveh and its Remains*, vol. ii. p. 382.

It is evident that before armies could look habitually to being transported across the Mesopotamian streams, wherever they might happen to strike them in their expeditions, by boats of these two kinds, either ferries must have been established at convenient intervals upon them, or traffic along their courses by means of boats must have been pretty regular. An Assyrian army did not carry its boats with it, as a modern army does its pontoons. Boats were commonly found in sufficient numbers on the streams themselves when an army needed them, and were impressed, or hired, to convey the troops across. And thus we see that the actual navigation of the streams had another object besides the military one of transport from bank to bank. Rivers are Nature's roads; and we may be sure that the country had not been long settled before a water communication began to be established between towns upon the river-courses, and commodities began to be transported by means of them. The very position of the chief towns upon the banks of the streams was probably connected with this sort of transport, the rivers furnishing the means by which large quantities of building material could be conveniently concentrated at a given spot, and by which supplies could afterwards be regularly received from a distance. We see in the Assyrian sculptures the conveyance of stones, planks, &c., along the rivers,[12] as well as the passage of chariots, horses,[13] and persons across them. Rafts and round boats were most commonly used for this purpose. When a mass of unusual size, as a huge paving-stone, or a colossal bull or lion, had to be moved, a long, low, flat-bottomed boat was employed, which the mass sometimes more than covered.[14] In this case, as there was no room for rowers, trackers were engaged, who dragged the vessel along by means of ropes, which were fastened either to the boat itself or to its burthen.

During the later period of the monarchy various improvements took place in Assyrian boat-building. The Phœnician

[12] *Monuments*, 2nd Series, Pls. 10, 12, and 13.

[13] For the transport of horses in boats, see a woodcut in Layard's *Nineveh and Babylon*, p. 232, and compare above, p. 229.

[14] *Monuments*, 2nd Series, Pl. 10.

and Cyprian expeditions of the later kings made the Assyrians well acquainted with the ships of first-rate nautical nations; and they seem to have immediately profited by this acquaintance, in order to improve the appearance and the quality of their own river boats. The clumsy and inelegant long-boat of the earlier times was replaced, even for ordinary traffic, by a light and graceful fabric, which was evidently a copy from Phœnician models. Modifications, which would seem trifling, if described, changed the whole character of the vessels, in which light and graceful curves took the place of straight lines and angles only just rounded off. The stem and stern were raised high above the body of the boat, and were shaped like fishes' tails or carved into the heads of animals.[1] Oars, shaped nearly like modern ones, came into vogue, and the rowers were placed so as all to look one way, and to pull instead of pushing with their oars. Finally, the principle of the bireme was adopted, and river-galleys were constructed of such a size that they had to be manned by thirty rowers, who sat in two tiers one above the other at the sides of the galley, while the centre part, which seems to have been decked, was occupied by eight or ten other persons.[2]

No. I. Early long-boat (Nimrud).

No. II. Later long-boat (Khorsabad).

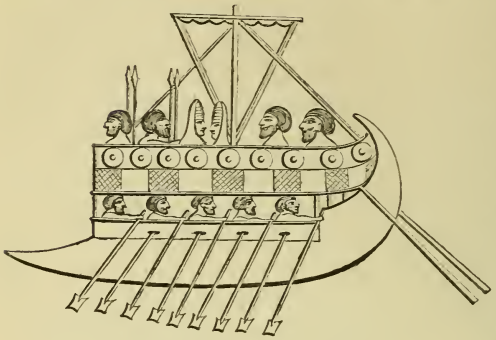
In galleys of this kind the naval architecture of the Assyrians seems to have culminated. They never, so far as appears, adopted for their boats the inventions, with which their intercourse with Phœnicia had rendered them perfectly familiar,[3] of masts, and sails. This is probably to be explained from the

[1] For other examples of the boats of this time, see pp. 229 and 309.

[2] See p. 361 for a representation of such a bireme.

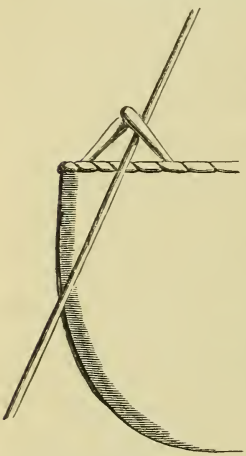
[3] Masts and sails will be found in representations of Phœnician vessels (Layard, *Monuments*, 1st Series, Pl. 71), which belong to the time of Sennacherib. Masts without sails appear in the sculptures of Sargon. (Botta, *Monument*, vol. i. Pls. 31 to 35.)

extreme rapidity of the Mesopotamian rivers, on which sailing boats are still uncommon. The unfailing strength of rowers was needed in order to meet and stem the force of the currents, and this strength being provided in abundance, it was not thought necessary to husband it or eke it out by the addition of a second motive power. Again, the boats, being intended only for peaceful purposes, were unprovided with beaks, another invention well known to the Assyrians, and frequently introduced into their sculptures in the representations of Phœnician vessels.



Phœnician bireme (Koyunjik).

In the Assyrian biremes the oars of the lower tier were worked through holes in the vessel's sides.[4] This arrangement would, of course, at once supply a fulcrum and keep the oars in their places. But it is not so easy to see how the oar of a common row-boat, or the uppermost tier of a bireme, obtained their purchase on the vessel, and were prevented from slipping along its side. Assyrian vessels had no rullocks, and in general the oars are represented as simply rested without any support on the upper edge of the bulwark. But this can scarcely have been the real practice; and one or two representations, where a support is provided, may be fairly regarded as showing what the practice actually was. In the figure of a *kufa*, or round boat, already given,[5] it will be



Oar kept in place by pegs (Koyunjik).

[4] See the representation, p. 361.

[5] Supra, p. 546.

seen that one oar is worked by means of a thong, like the τροπὸς or τροπωτὴρ of the Greeks, which is attached to a ring in the bulwark. In another bas-relief,[6] several of the oars of similar boats are represented as kept in place by means of two pegs fixed into the top of the bulwark and inclined at an angle to one another. Probably one or other of these two methods of steadying the oar was in reality adopted in every instance.

With regard to Assyrian commerce, it must at the outset be remarked that direct notices in ancient writers of any real authority are scanty in the extreme. The Prophet Nahum says indeed, in a broad and general way, of Nineveh—"Thou hast multiplied thy merchants above the stars of heaven;"[7] and Ezekiel tells us more particularly that Assyrian merchants, along with others, traded with Tyre "in blue clothes, and broidered work, and in chests of rich apparel."[8] But, except these two, there seem to be no notices of Assyrian trade in any contemporary or *quasi*-contemporary author. Herodotus, writing nearly two hundred years after the empire had come to an end, mentions casually that "Assyrian wares" had in very ancient times been conveyed by the Phœnicians to Greece, and there sold to the inhabitants.[9] He speaks also of a river traffic in his own day between Armenia and Babylon along the course of the Euphrates,[10] a fact which indirectly throws light upon the habits of earlier ages. Diodorus, following Ctesias, declares that a number of cities were established from very ancient times on the banks of both the Tigris and the Euphrates, to serve as marts for trade to the merchants who imported into Assyria the commodities of Media and Parætacêne.[11] Among the most important of these marts, as we learn from Strabo, were

[6] Layard, *Monuments*, 2nd Series, Pls. 12, 13. The entire bas-relief, of which Mr. Layard has represented parts, may be seen in the British Museum.

[7] Nahum iii. 16.

[8] Ezek. xxvii. 23, 24: "Haran and Canneh and Eden, the merchants of Sheba, *Asshur*, and Chilmad, were thy merchants. These were thy merchants in all sorts of things [or, excellent things], in blue clothes [or, foldings], and broidered work, and in chests of rich apparel, bound with cords, and made of cedar, among thy merchandise." In Ezek. xxvii. 6, the Asshurites (בַּת־אַשֻּׁרִים) are said to have made the Tyrians "benches of ivory;" but it is doubtful if the Assyrians are intended. (Compare Gen. xxv. 3.)

[9] Herod. i. 1.

[10] Ibid. i. 194. (Compare 185.)

[11] Diod. Sic. ii. 11.

Tiphsach or Thapsacus on the Euphrates, and Opis upon the Tigris.[12]

It is from notices thus scanty, partial, and incidental, eked out by probability, and further helped by a certain number of important facts with respect to the commodities actually used in the country, whereof evidence has been furnished to us by the recent discoveries, that we have to form our estimate of the ancient commerce of the Assyrians. The Inscriptions throw little or no light upon the subject. They record the march of armies against foreign enemies, and their triumphant return laden with plunder and tribute, sometimes showing incidentally what products of a country were most in request among the Assyrians; but they contain no accounts of the journeys of merchants, or of the commodities which entered or quitted the country in the common course of trade.

The favourable situation of Assyria for trade has often attracted remark.[1] Lying on the middle courses of two great navigable streams, it was readily approached by water both from the north-west and from the south-east. The communication between the Mediterranean and the Southern or Indian Ocean naturally—almost necessarily—followed this route. If Europe wanted the wares and products of India, or if India required the commodities of Europe, by far the shortest and easiest course was the line from the eastern Mediterranean across Northern Syria, and thence by one or other of the two great streams to the innermost recess of the Persian Gulf. The route by the Nile, the canal of Neco, and the Red Sea, was decidedly inferior, more especially on account of the dangerous navigation of that sea, but also because it was circuitous, and involved a voyage in the open ocean of at least twice the length of the other.[2]

Again, Assyria lay almost necessarily on the line of land

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[12] Strab. xvi. 3, § 4, and 1, § 9.

[1] Heeren, *Asiatic Nations*, vol. ii. pp. 194-198, E. T.; Layard, *Nineveh and its Remains*, vol. ii. p. 414; Vance Smith, *Prophecies relating to Nineveh*, pp. 62, 63.

[2] The distance from the Straits of Bab el Mandeb to the western mouth of the Indus is more than double that from the Ras Musendom to the same point. The one is 800, the other 1800 miles.

communication between the north-east and the south-west. The lofty Armenian mountain-chains—Niphates and the other parallel ranges—towards the north, and the great Arabian Desert towards the south, offered difficulties to companies of land-traders which they were unwilling to face, and naturally led them to select routes intermediate between these two obstacles, which could not fail to pass through some part or other of the Mesopotamian region.

The established lines of land trade between Assyria and her neighbours were probably very numerous, but the most important must have been some five or six. One almost certainly led from the Urumiyeh basin over the *Keli-shin* pass (lat. 37°, long. 45° nearly), descending on Rowandiz, and thence following the course of the Greater Zab to Herir, whence it crossed the plain to Nineveh. At the summit of the *Keli-shin* pass is a pillar of dark blue stone, six feet in height, two in breadth, and one in depth, let into a basement block of the same material, and covered with a cuneiform inscription in the Scythic character.[3] At a short distance to the westward on the same route is another similar pillar.[4] The date of the inscriptions falls within the most flourishing time of the Assyrian empire,[5] and their erection is a strong argument in favour of the use of this route (which is one of the very few possible modes of crossing the Zagros range) in the time when that empire was in full vigour.

Another line of land traffic probably passed over the same mountain-range considerably further to the south. It united Assyria with Media, leading from the Northern Ecbatana (Takht-i-Suleïman) by the Banneh pass[6] to Suleïmaniyeh, and thence by Kerkuk and Altun-Kiupri to Arbela and Nineveh.

There may have been also a route up the valley of the Lesser Zab, by Koi-Sinjah and over the great Kandil range into Lajihan. There are said to be Assyrian remains near Koi-

[3] See the *Journal of the Geographical Society*, vol. x. p. 21.

[4] Ibid. p. 22.

[5] About B.C. 700. The inscriptions are in the early Scythic Armenian, and belong to a king called *Minua*, who reigned at Van towards the end of the eighth century B.C.

[6] This pass is the lowest and easiest in the whole chain, and would therefore almost certainly have come into use at a very early date.

Sinjah,[7] at a place called the Bihisht and Jehennen ("the Heaven and Hell") of Nimrud, but no account has been given of them by any European traveller.

Westward there were probably two chief lines of trade with Syria and the adjacent countries. One passed along the foot of the Sinjar range by Sidikan (*Arban*) on the Khabour to Tiphsach (or Thapsacus) on the Euphrates, where it crossed the Great River. Thence it bent southwards, and passing through Tadmor, was directed upon Phœnicia most likely by way of Damascus.[8] Another took a more northern line by the Mons Masius to Harran and Seruj, crossing the Euphrates at Bir, and thence communicating both with Upper Syria and with Asia Minor. The former of these two routes is marked as a line of traffic by the foreign objects discovered in such abundance at Arban,[9] by the name Tiphsach, which means "passage,"[10] and by the admitted object of Solomon in building Tadmor.[11] The other rests on less direct evidence; but there are indications of it in the trade of Harran with Tyre which is mentioned by Ezekiel,[12] and in the Assyrian remains near Seruj,[13] which is on the route from Harran to the Bir fordway.

Towards the north, probably the route most used was that which is thought by many to be the line followed by Xenophon,[1] first up the valley of the Tigris to Til or Tilleh, and then along the Bitlis Chai to the lake of Van and the adjacent country. Another route may have led from Nineveh to Nisibis, thence through the Jebel Tur to Diarbekr, and from Diarbekr up the Western Tigris to Arghana, Kharput, Malatiyeh, and Asia Minor. Assyrian remains have been found at various points

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[7] This statement is made on the authority of Sir H. Rawlinson.

[8] See the article on DAMASCUS in Dr. Smith's *Biblical Dictionary*, vol. i. p. 383.

[9] Layard, *Nineveh and Babylon*, pp. 280-282.

[10] Tiphsach is formed from פָּסַח, "to pass over" (whence our word "Paschal"), by the addition of the prosthetic ת.

[11] That Solomon built Tadmor for commercial purposes has been generally seen and allowed. (Cf. Ewald, *Geschichte d. Volkes Israel*, vol. iii. p. 344, 2nd ed.; Kitto, *Biblical Cyclopædia*, vol. ii. p. 816; Milman, *History of the Jews*, vol. i. p. 266.)

[12] Ezek. xxvii. 23.

[13] See above, p. 197.

[1] Layard, *Nineveh and Babylon*, p. 49 and Map; Ainsworth's *Travels in the Track*, &c., pp. 141-171. Mr. Ainsworth, however, takes the Ten Thousand along the route from Sert to Mush, leaving the Van Lake considerably to the east.

along this latter line,[2] while the former is almost certain to have connected the Assyrian with the Armenian capital.[3]

Armenian productions would, however, reach Nineveh and the other great central cities mainly by the Tigris, down which they could easily have been floated from Tilleh or even from Diarbekr. Similarly, Babylonian and Susianian productions, together with the commodities which either or both of those countries imported by sea, would find their way into Assyria up the courses of the two streams, which were navigated by vessels capable of stemming the force of the current, at least as high as Opis and Thapsacus.[4]

We may now proceed to inquire what were the commodities which Assyria, either certainly or probably, imported by these various lines of land and water communication. Those of which we seem to have some indication in the existing remains are gold, tin, ivory, lead, stones of various kinds, cedar-wood, pearls, and engraved seals.

Many articles in gold have been recovered at the various Assyrian sites where excavations have been made; and indications have been found of the employment of this precious metal in the ornamentation of palaces and of furniture.[5] The actual quantity discovered has, indeed, been small; but this may be accounted for without calling in question the reality of that extraordinary wealth in the precious metals which is ascribed by all antiquity to Assyria.[6] This wealth no doubt flowed in, to a considerable extent, from the plunder of conquered nations and the tribute paid by dependant monarchs. But the quantity obtained in this way would hardly have sufficed to maintain the luxury of the court and at the same

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[2] Chiefly by Mr. Consul Taylor, whose discoveries in this region will be again noticed in the Historical chapter.

[3] There were perhaps two other northern routes intermediate between these: one leading up the *Supnat* or river of Sophene—the eastern branch of the true Tigris, and crossing the Euphrates at *Palou*, where there is an inscription in the Scythic Armenian; and the other, described by Procopius (*De Ædific.* ii. 4), which crossed the mountains between *Redwan* and *Mush*.

[4] Strab. xvi. 1, § 9, and 3, § 3.

[5] Layard, *Nineveh and its Remains*, vol. i. pp. 30, 134; vol. ii. pp. 263, 264; *Nineveh and Babylon*, p. 652.

[6] Diod. Sic. ii. 27, 28; Athen. *Deipn.* xii. 37; Phœnix Coloph. ap. Athen. xii. 40; Plin. *H. N.* xxxiii. 15; Nahum ii. 9, &c.

time to accumulate, so that when Nineveh was taken there was "none end" of the store.[7] It has been suggested[8] that "mines of gold were probably once worked within the Assyrian dominions," although no gold is now known to be produced anywhere within her limits. But perhaps it is more probable that, like Judæa[9] and Phœnicia,[10] she obtained her gold in a great measure from commerce, taking it either from the Phœnicians, who derived it both from Arabia[11] and from the West African coast,[12] or else from the Babylonians, who may have imported it by sea from India.[13]

Tin, which has not been found in a pure state in the remains of the Assyrians, but which enters regularly as an element into their bronze, where it forms from one-tenth to one-seventh of the mass,[14] was also, probably, an importation. Tin is a comparatively rare metal. Abundant enough in certain places, it is not diffused at all widely over the earth's surface. Neither Assyria itself nor any of the neighbouring countries are known to have ever produced this mineral. Phœnicia certainly imported it, directly or indirectly, from Cornwall and the Scilly Isles, which therefore became first known in ancient geography as the Cassiterides or "Tin Islands."[15] It is a reasonable supposition that the tin, wherewith the Assyrians hardened their bronze, was obtained by their merchants from the Phœnicians[16] in exchange for textile fabrics and (it may be) other commodities. If so, we may believe that in many instances the pro-

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[7] The whole passage in Nahum runs thus—"Take ye the spoil of *silver*, take the spoil of *gold:* for there is *none end* of the store, the abundance of every precious thing."

[8] Layard, *Nineveh and its Remains*, vol. ii. p. 416.

[9] 1 Kings ix. 28, x. 11; Job xxii. 24.

[10] Ezek. xxvii. 22.

[11] The "merchants of Sheba" who "occupied" in the fairs of Tyre with "chief of all spices, and with all precious stones and gold" (Ezek. *l. c.*), were undoubtedly Arabians—*i.e.* Sabæans of Yemen. (Heeren, *Asiatic Nations*, vol. ii. p. 98, E. T.; Poole in Smith's *Biblical Dictionary*, vol. i. p. 94, ad voc. ARABIA.)

[12] Through the Carthaginians, their colonists, who were the actual traders in this quarter. (See Herod. iv. 196.)

[13] Supra, p. 101.

[14] See the results of Dr. Percy's analysis of Assyrian bronzes in Mr. Layard's *Nineveh and Babylon*, Appendix, pp. 670-672.

[15] Compare Herod. iii. 115; Posidon. Fr. 48; Polyb. iii. 57, § 3; Diod. Sic. v. 22 and 38: Strab. iii. p. 197; Plin. *H. N.* iv. 22; Timæus ap. Plin. iv. 16; Pomp. Mel. iii. 6; Solin. 26. According to Diodorus and Strabo, the Phœnicians likewise obtained tin from Spain.

[16] Layard, *Nineveh and Babylon*, p. 191.

duce of our own tin mines, which left our shores more than twenty-five centuries ago, has, after twice travelling a distance of many thousand miles, returned to seek a final rest in its native country.

Ivory was used by the Assyrians extensively in their furniture,[17] and was probably supplied by them to the Phœnicians and the Greeks. It was no doubt sometimes brought to them by subject nations as tribute;[18] but this source of supply is not sufficient to account, at once for the consumption in Assyria itself, and for the exports from Assyria to foreign countries.[19] A regular trade for ivory seems to have been carried on from very early times between India and Dedan (*Bahrein ?*) in the Persian Gulf.[20] The "travelling companies of the Dedanim,"[1] who conveyed this precious merchandise from their own country to Phœnicia, passed probably along the course of the Euphrates, and left a portion of their wares in the marts upon that stream, which may have been thence conveyed to the great Assyrian cities. Or the same people may have traded directly with Assyria by the route of the Tigris. Again, it is quite conceivable—indeed, it is probable—that there was a land traffic between Assyria and Western India by the way of Cabul, Herat, the Caspian Gates, and Media. Of this route we have a trace in the land animals engraved upon the well-known Black Obelisk, where the combination of the small-eared or Indian elephant and the rhinoceros with the two-humped Bactrian camel,[2] sufficiently marks the line by which the productions of India, occasionally at any rate, reached Assyria. The animals themselves were, we may be sure, very rarely transported.

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[17] Supra, pp. 372-375. The classical writers were acquainted with this fact. Dionysius Periegetes says that Semiramis built a temple to Belus,

Χρυσῷ, ἠδ' ἐλέφαντι, καὶ ἀργύρῳ ἀσκήσασα (l. 1008).

And Festus Avienus declares of the same building,

"Domus Indo dente nitescit." (l. 931).

[18] See Sir H. Rawlinson's *Commentary on the Cuneiform Inscriptions of Babylonia and Assyria*, p. 48.

[19] On this subject see Mr. Birch's *Memoir* in the *Transactions of the Royal Society of Literature*, New Series, vol. iii. p. 174.

[20] See Heeren, *Asiatic Nations*, vol. ii. p. 245, E. T.; Poole in Smith's *Biblical Dictionary*, ad voc. Dedan.

[1] Isaiah xxi. 13. Compare Ezek. xxvii. 15.

[2] See the illustration, supra, p. 230.

Indeed, it is not till the very close of the Persian empire that we find elephants possessed—and even then in scanty numbers—by the Western Asiatic monarchs.[3] But the more portable products of the Indus region, elephants' tusks, gold, and perhaps shawls and muslins, are likely to have passed to the west by this route with far greater frequency.

The Assyrians were connoisseurs in hard stones and gems, which they seem to have imported from all quarters. The lapis lazuli, which is found frequently among the remains as the material of seals, combs, rings, jars, and other small objects, probably came from Bactria or the adjacent regions, whence alone it is procurable at the present day.[4] The cornelian used for cylinders may have come from Babylonia, which, according to Pliny,[5] furnished it of the best quality in the more ancient times. The agates or onyxes may have been imported from Susiana, where they were found in the bed of the Choaspes (*Kerkhah*), or they may possibly have been brought from India.[6] Other varieties are likely to have been furnished by Armenia, which is rich in stones; and hence too was probably obtained the *shamir*, or emery-stone,[7] by means of which the Assyrians were enabled to engrave all the other hard substances known to them.

That cedar-wood was imported into Assyria is sufficiently indicated by the fact that, although no cedars grew in the country, the beams in the palaces were frequently of this

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[3] Darius Codomannus had but fifteen elephants at Arbela. (Arrian, *Exp. Alex.* iii. 8.)

[4] The best mines are those near Fyzabad, east of Balkh, on the upper Jihun river (Fraser's *Khorasan*, pp. 105, 106). The other localities where the stone is found are the region about Lake Baikal, and some parts of Thibet and China. (See Encycl. Britann. ad voc. MINERALOGY.)

[5] Plin. *H. N.* xxxvii. 7.

[6] According to Ctesias the onyxes used for seals by the Babylonians and Assyrians were chiefly derived from India. (Ctes. *Ind.* § 5.) Dionysius Periegetes speaks of agates as abundant in the bed of the Choaspes (*Perieg.* ll. 1075-1077).

[7] See Theophrast. *De Lapid.* p. 397; Plin. *H. N.* xxxvi. 7 and 22. That the Naxian stone of the Greeks and Romans was emery is proved by Mr. King (*Ancient Gems*, p. 473), who believes it to have been first used by, and to have derived its name of "emery" from, the Assyrians. The Semitic *shamir* or *sh'mir* (שָׁמִיר) became the Greek σμύρις, Latin *smyris* or *smiris*, Italian *smeriglio*, French *esmeril* or *émeril*, and our "emery." It seems to be certain that the Assyrian gems could not have been engraved without emery.

material.[8] It may not, however, have been exactly an article of commerce, since the kings appear to have cut it, after their successful expeditions into Syria, and to have carried it off from Lebanon and Amanus as part of the plunder of the country.[9]

Pearls, which have been found in Assyrian ear-rings,[10] must have been procured from the Persian Gulf, one of the few places frequented by the shell-fish which produces them. The pearl fisheries in these parts were pointed out to Nearchus, the admiral of Alexander,[11] and had no doubt been made to yield their treasures to the natives of the coasts and islands from a remote antiquity. The familiarity of the author of the Book of Job with pearls[12] is to be ascribed to the ancient trade in them throughout the regions adjoining the Gulf, which could not fail to bring them at an early date to the knowledge of the Hebrews.

Engraved stones, generally in the shape of scarabs, seem to have been largely imported from Egypt into Assyria, where they were probably used either as amulets or as seals. They have been found in the greatest plenty at Arban[13] on the lower Khabour, the ancient Sidikan or Shadikanni, which lies nearly at the extreme west of the Assyrian territory; but many specimens have likewise been obtained from Nineveh and other of the central Assyrian cities.[14]

If we were to indulge in conjecture, we might add to this list of Assyrian importations at least an equal number of commodities which, though they have not been found in the ancient remains, may be fairly regarded, on grounds of probability, as objects of trade between Assyria and her neighbours. Frankincense, which was burnt in such lavish profusion in the great temple at Babylon,[15] was probably offered in considerable quantities upon Assyrian altars, and could only have been

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[8] Supra, p. 307. Compare Layard, *Nineveh and Babylon*, p. 357.

[9] Supra, p. 475.

[10] Layard, *Nineveh and Babylon*, p. 595.

[11] Arrian, *Indica*, p. 174.

[12] "No mention shall be made of coral or of pearls: for the price of wisdom is above rubies" (Job xxviii. 18).

[13] Layard, *Nineveh and Babylon*, pp. 281, 282.

[14] Ibid. p. 280.

[15] Herod. i. 183.

obtained from Arabia.[16] Cinnamon, which was used by the Jews from the time of the Exodus,[17] and which was early imported into Greece by the Phœnicians,[1] who received it from the Arabians,[2] can scarcely have been unknown in Assyria when the Hebrews were familiar with it. This precious spice must have reached the Arabians from Ceylon or Malabar, the most accessible of the countries producing it.[3] Muslins, shawls, and other tissues are likely to have come by the same route as the cinnamon; and these may possibly have been among the "blue clothes and broidered work and rich apparel," which the merchants of Asshur carried to Tyre in "chests, bound with cords and made of cedar-wood."[4] Dyes, such as the Indian lacca,[5] raw cotton, ebony and other woods, may have come by the same line of trade; while horses and mules are likely to have been imported from Armenia,[6] and slaves from the country between Armenia and the Halys river.[7]

If from the imports of Assyria we pass to her exports, we leave a region of uncertain light to enter upon one of almost total darkness. That the "wares of Assyria" were among the commodities which the Phœnicians imported into Greece at a very early period, we have the testimony of Herodotus;[8] but he leaves us wholly without information as to the nature of the wares themselves. No other classical writer of real authority touches the subject; and any conclusions that we may form upon it must be derived from one of two sources, either general probability, or the single passage in a sacred author which

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[16] Herod. iii. 107: Ἐν δὲ ταύτῃ [τῇ Ἀραβίῃ] λιβανωτός ἐστι μούνῃ χωρέων πασέων φυόμενος. Virg. *Georg.* ii. 117: "Solis est thurea virga Sabæis."

[17] Ex. xxx. 23.

[1] Herod. iii. 111. [2] Ibid.

[3] Herodotus thought that cinnamon was a product of Arabia (iii. 107). But in this he was probably mistaken. (See Pliny, *H. N.* xii. 19.) No true cinnamon seems to grow nearer Europe than Ceylon and Malabar.

[4] Ezek. xxvii. 24. The conjecture is made by Vincent (*Periplus*, vol. i. p. 62).

[5] See Heeren (*Asiatic Nations*, vol. ii. p. 208, E. T.).

[6] Ezekiel tells us that Armenia (Togarmah) traded with Phœnicia in "horses, horsemen, and mules"—or, more correctly, in "carriage-horses, riding-horses, and mules" (Hitzig, *Comment.* ad voc.). In such articles Assyria would be likely to be at least as good a customer as Phœnicia.

[7] Tubal and Meshech (the Tibareni and Moschi) "traded the persons of men" in the market of Tyre (Ez. xxvii. 13). Their position in Assyrian times was between Armenia and the Halys.

[8] Herod. i. 1: Φορτία Ἀσσύρια.

gives us a certain amount of authentic information.[9] From the passage in question, which has been already quoted at length,[10] we learn that the chief of the Assyrian exports to Phœnicia were textile fabrics, apparently of great value, since they were most carefully packed in chests of cedar-wood secured by cords. These fabrics may have been "blue cloaks,"[11] or "embroidery,"[12] or "rich dresses" of any kind,[13] for all these are mentioned by Ezekiel; but we cannot say definitely which Assyria traded in, since the merchants of various other countries are joined in the passage with hers. Judging by the monuments, we should conclude that at least a portion of the embroidered work was from her looms and workshops; for, as has been already shown, the embroidery of the Assyrians was of the most delicate and elaborate description.[14] She is also likely to have traded in rich apparel of all kinds, both such as she manufactured at home and such as she imported from the far East by the lines of traffic which have been pointed out. Some of her own fabrics may possibly have been of silk, which in Roman times was a principal Assyrian export.[15] Whether she exported her other peculiar productions, her transparent and coloured glass, her exquisite metal bowls, plates, and dishes, her beautifully carved ivories, we cannot say. They have not hitherto been found in any place beyond her dominion,[16] so that it would rather seem that she produced them only for home consumption. Some ancient notices appear to imply a belief on the part of the Greeks and Romans that she produced and exported various spices. Horace speaks of Assyrian nard,[17] Virgil of Assyrian *amo-*

[9] Ezek. xxvii. 23, 24.

[10] Supra, p. 551, note [8].

[11] Neither the "clothes" of the Authorised Version, which is the rendering in the text, nor the "foldings" of the margin, seems to give the true meaning. *Gálom* (גְּלוֹם) is from גָּלַם, "to wrap together," and means "that in which a man wraps himself," "a cloak." Buxtorf translates by "pallium." (*Lex.* ad voc.)

[12] *Rikmah* (רִקְמָה) is the word used, from רָקַם, "to embroider."

[13] The rare word בְּרוֹמִים is explained by R. Salomon as "a general name for beautiful garments in Arabic." So Kimchi. (See Buxtorf ad voc.)

[14] Pp. 397, 398.

[15] Pliny, *H. N.* xi. 22 and 23.

[16] The silver bowls found in Cyprus are no exception, for Cyprus must be regarded as within the dominions of Assyria. (See p. 370, note [2].)

[17] Hor. *Od.* ii. 11, 16: "Assyriâque nardo."

mum,[18] Tibullus of Assyrian odours generally.[19] Æschylus has an allusion of the same kind in his Agamemnon.[20] Euripides[21] and Theocritus,[22] who mention respectively Syrian myrrh and Syrian frankincense, probably use the word "Syrian" for "Assyrian."[23] The belief thus implied is not, however, borne out by inquiry. Neither the spikenard (*Nardostachys Jatamansi*), nor the amomum (*Amomum Cardamomum*), nor the myrrh tree (*Balsamodendron Myrrha*), nor the frankincense tree (*Boswellia thurifera*), nor any other actual spice,[24] is produced within the limits of Assyria, which must always have imported its own spices from abroad, and can only have supplied them to other countries as a carrier. In this capacity she may very probably, even in the time of her early greatness, have conveyed on to the coast of Syria the spicy products of Arabia and India, and thus have created an impression, which afterwards remained as a tradition, that she was a great spice-producer as well as a spice-seller.

In the same way, as a carrier, Assyria may have exported many other commodities. She may have traded with the Phœnicians, not only in her own products, but in the goods which she received from the south and east, from Bactria, India, and the Persian Gulf—such as lapis-lazuli, pearls, cinnamon, muslins, shawls, ivory, ebony, cotton. On the other hand, she may have conveyed to India, or at least to Babylon, the productions which the Phœnicians brought to Tyre and Sidon from the various countries bordering upon the Mediterranean Sea and even the Atlantic Ocean—as tin, hides, pottery, oil, wine, linen. On this point, however, we have at

[18] Virg. *Ecl.* iv. 25:
"Assyrium vulgò nascetur amomum."

[19] Tibull. *Eleg.* i. 3, 7:
"Non soror, Assyrios cineri quæ dedat odores."

[20] Æschyl. *Agam.* l. 1285:
Οὐ Σύριον ἀγλάϊσμα δώμασιν λέγεις.

[21] Eurip. *Bacch.* l. 144:
Συρίας λιβάνου καπνός.

[22] Theocr. *Idyll.* xv. 114:
Συρίῳ δὲ μύρῳ χρύσει' ἀλάβαστρα.

[23] On the indifferent use of the terms "Syrian" and "Assyrian" by the Greeks, see the author's *Herodotus*, vol. iv. p. 51, 2nd edition.

[24] There are many spicy shrubs and plants in Assyria, such as those noticed by Xenophon (*Anab.* i. 5, § 1); but, I believe, none of the plants which produce the spices of commerce. (See Mr. Ainsworth's *Researches in Assyria*, &c., p. 34.) Strabo, however, it must be admitted, distinctly asserts that *amomum* was produced in Mesopotamia Proper (xvi. p. 1060).

present no evidence at all; and, as it is not the proper office of an historian to indulge at any length in mere conjecture, the consideration of the commercial dealings of the Assyrians may be here brought to a close.

On the agriculture of the Assyrians a very few remarks will be offered. It has been already explained that the extent of cultivation depended entirely on the conveyance of water.[1] There is good reason to believe that the Assyrians found a way to spread water over almost the whole of their territory. Either by the system of *kanáts* or subterranean aqueducts, which has prevailed in the East from very early times,[2] or by an elaborate network of canals, the fertilising fluid was conveyed to nearly every part of Mesopotamia, which shows by its innumerable mounds, in regions which are now deserts, how large a population it was made to sustain under the wise management of the great Assyrian monarchs.[3] Huge dams seem to have been thrown across the Tigris in various places, one of which (the *Awai*) still remains,[4] seriously impeding the navigation. It is formed of large masses of squared stones, united together by cramps of iron. Such artificial barriers were intended, not (as Strabo believed[5]) for the protection of the towns upon the river from a hostile fleet, but to raise the level of the stream in order that its water might flow off into canals on one bank or the other, whence they could be spread by means of minor channels over large tracts of territory. The canals themselves

[1] See pp. 214, 215.

[2] Herodotus indicates some knowledge of the system when he relates that Cambyses' army, in its passage across the desert between Syria and Egypt, was in part supplied with water by means of pipes derived from a distant river which conducted the fluid into cisterns (iii. 9). Polybius says that the plan was widely adopted by the Persians in the time of their empire (x. 28, § 3). Strabo says that the pipes and reservoirs (σύριγγες and ὑδρεῖα) of Western Asia were popularly ascribed to Semiramis (xvi. 1, § 2).

[3] Layard, *Nineveh and its Remains*, vol. i. p. 314; *Nineveh and Babylon*, pp. 241-246.

[4] Layard, *Nineveh and its Remains*, vol. i. p. 8. In his *Nineveh and Babylon*, Mr. Layard throws some doubt upon the real purpose of this work, which he inclines to regard as the wall of a town, rather than a dam for purposes of irrigation (p. 466). But Captain Jones thinks the work was certainly a "great dam." (*Journal of the Asiatic Society*, vol. xv. p. 343.)

[5] Strab. xvi. 1, § 9. This seems to have been the conjecture of the Greeks who accompanied Alexander. They found the dams impede their own ships, and could not see that they served any other purpose, since the irrigation system had gone to ruin as the Persian Empire declined. (See Arrian, *Exp. Alex.* vii. 7.)

have in most cases been gradually filled up. In one instance, however, owing either to the peculiar nature of the soil or to some unexplained cause, we are still able to trace the course of an Assyrian work of this class, and to observe the manner and principles of its construction.

In the tract of land lying between the lower course of the Great Zab River and the Tigris, in which was situated the important town of Calah (now Nimrud), a tract which is partly alluvial, but more generally of secondary formation, hard gravel, sandstone, or conglomerate, are the remains of a canal undoubtedly Assyrian,[6] which was carried for a distance of more than five-and-twenty miles from a point on the Khazr or Ghazr Su, a tributary of the Zab, to the south-eastern corner of the Nimrud ruins. Originally the canal seems to have been derived from the Zab itself, the water of which was drawn off, on its northern bank, through a short tunnel—the modern Negoub—and then conducted along a cutting, first by the side of the Zab, and afterwards in a tortuous course across the undulating plain, into the ravine formed by the Shor-Derreh torrent. The Zab, when this part of the work was constructed, ran deep along its northern bank, and sending a portion of its waters into the tunnel maintained a constant stream in the canal. But after a while the river abandoned its north bank for the opposite shore; and, water ceasing to flow through the Negoub tunnel, it became necessary to obtain it in some other way. Accordingly the canal was extended northwards, partly by cutting and partly by tunnelling, to the Ghazr Su at about two miles above its mouth, and a permanent supply was thenceforth obtained from that stream.[7] The work may have been intended in part to supply Calah with mountain-water;[8] but the remains

[6] The Assyrian inscription found by Mr. Layard in the tunnel at Negoub, of which he copied a portion imperfectly before its destruction (*Nineveh and its Remains*, vol. i. p. 80), sufficiently proves this.

[7] See the *Journal of the Asiatic Society*, vol. xv. pp. 310, 311.

[8] Captain Jones regards this as its sole object (*Asiatic Society's Journal*, l. s. c.); but Mr. Layard is probably right in his view that irrigation was at least one purpose which the canal was intended to subserve (*Nineveh and its Remains*, vol. i. p. 81). Several canals for irrigation seem to have been made by Sennacherib (*Nineveh and Babylon*, p. 212).

of dams and sluices along its course[9] sufficiently show that it was a canal for irrigation also. From it water was probably derived to fertilise the whole triangle lying south of Nimrud between the two streams, a tract containing nearly thirty square miles of territory, mostly very fertile, and with careful cultivation well capable of supporting the almost metropolitan city on which it abutted.

Chart of the district about Nimrud, showing the course of the ancient canal and conduit.

In Assyria it must have been seldom that the Babylonian system of irrigation could have been found applicable, and the water simply derived from the rivers by side-cuts, leading it off from the natural channel.[10] There is but little of Assyria

[9] These are "ingeniously formed from the original rock left standing in the centre." (Jones, ut supra.)

[10] Irrigation of this simple kind is applicable to parts of Eastern Assyria, between the Tigris and the mountains. (See Layard, *Nineveh and Babylon*, p. 224.)

which is flat and alluvial; the land generally undulates, and most of it stands at a considerable height above the various streams. The water therefore requires to be raised from the level of the rivers to that of the lands before it can be spread over them, and for this purpose hydraulic machinery of one kind or another is requisite. In cases where the *kanát* or subterranean conduit was employed, the Assyrians probably (like the ancient and the modern Persians[11]) sank wells at intervals, and raised the water from them by means of a bucket and rope, the latter working over a pulley.[12] Where they could obtain a bank of a convenient height overhanging a river, they made use of the hand-swipe,[13] and with its aid lifted the water into a tank or reservoir, whence they could distribute it over their fields. In some instances, it would seem, they brought water to the tops of hills by means of aqueducts, and then constructing a number of small channels, let the fluid trickle down them among their trees and crops.[14] They may have occasionally, like the modern Arabs,[15] employed the labour of an animal to raise the fluid; but the monuments do not furnish us with any evidence of their use of this method. Neither do we find any trace of water-wheels, such as are employed upon the Orontes and other swift rivers, whereby a stream can itself be made to raise water for the land along its banks.[1]

According to Herodotus, the kinds of grain cultivated in Assyria in his time were wheat, barley, sesame, and millet.[2] As these still constitute at the present day the principal agricultural products of the country,[3] we may conclude that

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[11] For the ancient practice see Polyb. l. s. c.; for the modern compare Malcolm, *History of Persia*, vol. i. p. 14; Chesney, *Euphrates Expedition*, vol. ii. p. 657.

[12] See the representation on p. 404.

[13] See Layard's *Monuments*, 2nd Series, Pl. 15; and compare above, p. 215.

[14] An instance of this mode of irrigation appears on a slab of the Lower Empire, part of which is represented on p. 310.

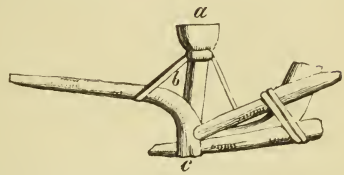
[15] Layard, *Nineveh and its Remains*, vol. i. pp. 353, 354.

[1] Stanley, *Sinai and Palestine*, p. 400. Abulfeda says that the Orontes acquired its name of *El Asi*, "the rebel," from its refusal to water the lands unless compelled by water-wheels (*Tabl. Syr.* pp. 149, 150, ed. Köhler). The wheels upon the Rhone below Geneva will be familiar to most readers.

[2] Herod. i. 193.

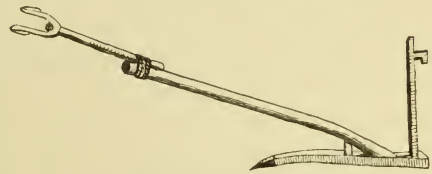
[3] Layard, *Nineveh and its Remains*, vol. ii. p. 423.

they were in all probability the chief species cultivated under the Empire. The plough used, if we may judge by the single representation of it which has come down to us,[4] was of a rude and primitive construction—a construction, however, which will bear comparison with that of the implements to this day in use through modern Turkey and Persia.[5] Of other agricultural implements we have no specimens at all, unless the square instrument with a small circle or wheel at each corner, which appears on the same monument as the plough, may be regarded as intended for some farming purpose.



No. I. Assyrian drill-plough (from Lord Aberdeen's Black Stone).

No. II. Modern Turkish plough.



No. III. Modern Arab plough.

Besides grain, it seems certain that the Assyrians cultivated the vine. The vine will grow well in many parts of Assyria;[6] and the monuments represent vines, with a great deal of truth, not merely as growing in the countries to which the Assyrians made their expeditions, but as cultivated along the sides of the rivers near Nineveh,[7] and in the gardens belonging to the

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[4] Mr. Layard calls this plough Babylonian rather than Assyrian (ib. p. 422). But the black stone on which it is engraved is a monument of Esarhaddon.

[5] See Fellows's *Asia Minor*, p. 71; and compare his *Lycia*, p. 174. See also C. Niebuhr's *Description de l'Arabie*, opp. p. 137. The chief point in which the Assyrian plough, as above represented, differs from the ordinary models, is in the existence of an apparatus (*a b*) for *drilling* the seed. It is evident that the bowl *a* was filled with grain, which ran down the pipe *b*, and entered the ground immediately after the ploughshare, at the point *c*.

[6] See p. 218, note [1]. To the places there mentioned, I may add the vicinity of Bavian, on the authority of the MS. notes communicated to me by Mr. Berrington.

[7] Layard, *Monuments*, 2nd Series. Pls. 14, 15, and 17.

palaces of the kings.[8] In the former case they appear to grow without any support, and are seen in orchards intermixed with other fruit-trees, as pomegranates and figs. In the latter they are trained upon tall trees resembling firs, round whose stems they twine themselves, and from which their rich clusters droop. Sometimes the long lithe boughs pass across from tree to tree, forming a canopy under which the monarch and his consort sip their wine.[9]

Before concluding this chapter a few remarks will be added upon the ordinary private life of the Assyrians, so far as the monuments reveal it to us. Under this head will be included their dress, their food, their houses, furniture, utensils, carriages, &c., their various kinds of labour, and the implements of labour which were known to them.

The ordinary dress of the common people in Assyria was a mere plain tunic, or shirt, reaching from the neck to a little above the knee, with very short sleeves, and confined round the waist by a broad belt or girdle.[10] Nothing was worn either upon the head or upon the feet. The thick hair, carried in large waves from the forehead to the back of the head, and then carefully arranged in three, four, or five rows of stiff curls, was regarded as a sufficient protection both from sun and rain. No head-covering was ever worn, except by soldiers, and by certain officials, as the king, priests, and musicians. Sometimes, if the hair was very luxuriant, it was confined by a band or fillet, which was generally tied behind the back of the head. The beard was worn long, and arranged with great care, the elaboration being pretty nearly the same in the case of the king and of the common labourer. Labourers of a rank a little above the lowest wore sandals, indulged in a fringed tunic, and occasionally in a phillibeg; while a still higher class had the fringed tunic and phillibeg, together with the close-fitting trouser and boot worn by soldiers.[11] These last are frequently eunuchs, who pro-

[8] See above, p. 353.

[9] See the representation given above, p. 493.

[10] See, for instance, the fishermen, *supra*, pp. 526 and 527.

[11] Layard, *Monuments*, 2nd Series, Pl. 17; *Nineveh and Babylon*, pp. 108 and 134.

bably belonged to a corps of eunuch labourers in the employ of the king.

Persons of the humbler labouring class wear no ornament, neither armlet, bracelet, nor ear-rings. Armlets and bracelets mark high rank, and indeed are rarely found unless the wearer is either an officer of the court, or at any rate a personage of some consideration. Ear-rings seem to have descended lower. They are worn by the attendants on sportsmen, by musicians, by cavalry soldiers, and even occasionally by foot soldiers. In this last case they are seldom more than a simple ring, which may have been of bronze or of bone. In other cases the ring mostly supports a long pendant.[12]

Men of rank appear to have worn commonly a long fringed robe reaching nearly to the feet.[13] The sleeves were short, only just covering the shoulder. Down to the waist, the dress closely fitted the form, resembling, so far, a modern jersey; below this there was a slight expansion, but still the scantiness of the robe is very remarkable. It had no folds, and must have greatly interfered with the free play of the limbs, rendering rapid movements almost impossible. A belt or girdle confined it at the waist, which was always patterned, sometimes elaborately. If a sword was carried, as was frequently the case, it was suspended, nearly in a horizontal position, by a belt over the left shoulder, to which it was attached by a ring, or rings, in the sheath.[1] There is often great elegance in these cross-belts, which look as if they were embroidered with pearls or beads. Fillets, ear-rings, armlets, and (in most instances) bracelets were also worn by Assyrians of the upper classes. The armlets are commonly simple bands, twisted round the arm once or twice, and often overlapping at the ends, which are plain, not ornamented. The bracelets are of slighter

Ornamental belt or girdle (Koyunjik).

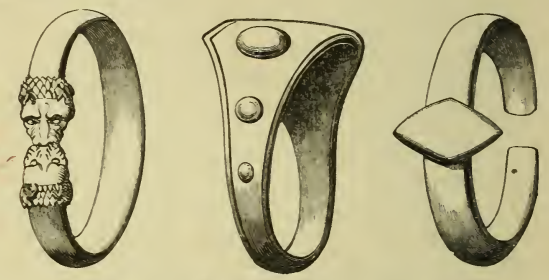
Ornamental cross-belt (Khorsabad).

[12] For specimens of ear-rings, see p. 371.

[13] This robe closely resembled the under-garment of the monarch. See above, p. 491.

[1] Botta, *Monument de Ninive*, vol. ii. Pls. 111 to 114; Layard, *Monuments*, 2nd Series, Pl. 32.

construction; their ends do not meet; they would seem to have been of thin metal, and sufficiently elastic to be slipped over the hand on to the wrist, which they then fitted closely. Generally they were quite plain; but sometimes, like the royal bracelets, they bore in their centre a rosette.[2] Sandals, or in the later times shoes, completed the ordinary costume of the Assyrian "gentleman."



Armlets of Assyrian grandees (Khorsabad).

Sometimes both the girdle round the waist, and the cross-belt, which was often worn without a sword, were deeply fringed, the two fringes falling one over the other, and covering the whole body from the chest to the knee.[3] Sometimes, but more rarely, the long robe was discarded, and the Assyrian of some rank wore the short tunic, which was then, however, always fringed, and commonly ornamented with a phillibeg.[4]

Certain peculiar head-dresses and peculiar modes of arranging the hair deserve special attention from their singularity. They belong in general to musicians, priests, and other official personages, and may perhaps have been badges of office. For instance, musicians sometimes wear on their heads a tall stiff cap shaped like a fish's tail;[5] at other times their head-dress is a sort of tiara of feathers.[6] Their hair is generally arranged in the ordinary Assyrian fashion; but sometimes it is worn comparatively short, and terminates in a double row of crisp curls.[7]

[2] Botta, Pls. 12 and 14.
[3] Ibid. Pls. 60 to 66, 110.
[4] Layard, *Monuments*, 2nd Series, Pl. 32; Botta, Pls. 108, 109, and 111.
[5] See Woodcut, No. I., on the next page. Two instances of this remarkable cap occur in the British Museum sculptures. Both are from Sennacherib's palace at Koyunjik.
[6] See the illustration on page 533.
[7] Botta, vol. i. Pl. 67. See above, p. 532.

Priests have head-dresses shaped like truncated cones.[8] A cook, in one instance,[9] wears a cap not unlike the tiara of the

No. III. Cap of the king's cook (Koyunjik).

No. I. Fish-cap of Assyrian musician (Koyunjik).

No. II. Tall cap of Assyrian priest (Koyunjik).

monarch, except that it is plain, and is not surmounted by an apex or peak. A harper has the head covered with a close-fitting cap, encircled with a row of large beads or pearls, from which a lappet depends behind, similarly ornamented.[10] A colossal figure in a doorway, apparently a man, though possibly representing a god, has the hair arranged in six monstrous curls, the lowest three resting upon the shoulder.[11]

Curious mode of arranging the hair (Koyunjik).

Women of the better sort seem to have been dressed in sleeved gowns, less scanty than those of the men, and either striped, or else patterned and fringed. Outside this they sometimes wore a short cloak of the same pattern as the gown, open in front and falling over the arms, which it covered nearly to the elbows. Their hair was either arranged over the whole of the head in short crisp curls, or carried back

[8] Layard, 2nd Series, Pls. 24 and 50.

[9] Ibid. 1st Series, Pl. 30.

[10] This curious head-dress occurs on a slab from the palace of Asshur-banipal at Koyunjik, which is now in the British Museum.

[11] Mr. Layard has a representation of this figure: *Monuments*, 2nd Series, Pl. 6.

in waves to the ears, and then in part twisted into long pendent ringlets, in part curled, like that of the men, in three or four rows at the back of the neck. A girdle was probably worn round the waist, such as we see in the representations of goddesses,[12] while a fringed cross-belt passed diagonally across the breast, being carried under the right arm and over the left shoulder. The feet seem to have been naked, or at best protected by a sandal. The head was sometimes encircled with a fillet.

Female seated. (From an ivory in the British Museum.)

Women thus appareled are either represented as sitting in chairs and drinking from a shallow cup, or else as gathering grapes, which, instead of growing naturally, hang upon branches that issue from a winged circle. The circle would seem to be emblematic of the divine power which bestows the fruits of the earth upon man.

The lower class of Assyrian women are not represented upon the sculptures. We may perhaps presume that they did not dress very differently from the female captives so frequent on the bas-reliefs, whose ordinary costume is a short gown not covering the ankles, and an outer garment somewhat resembling the chasuble of the king.[13] The head of these women is often covered with a hood: where the hair appears, it usually descends in a single long curl. The feet are in every case naked.

The ornaments worn by women appear to have been nearly the same as those assumed by men. They consisted principally

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[12] Layard, *Monuments*, 1st Series, Pl. 65. [13] See the illustration, supra, p. 480.

of ear-rings, necklaces, and bracelets. Ear-rings have been found in gold and in bronze, some with and some without places for jewels. One gold ear-ring still held its adornment of pearls.[14] Bracelets were sometimes of glass, and were slipped over the hand. Necklaces seem commonly to have been of beads, strung

Females gathering grapes. (From some ivory fragments in the British Museum.)

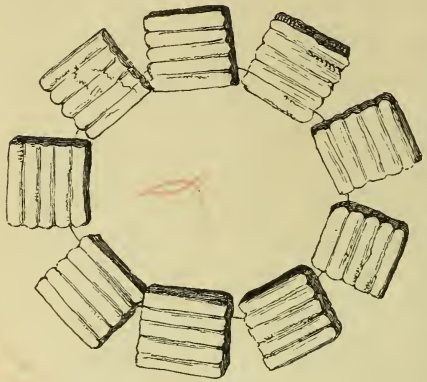
together. A necklace in the British Museum is composed of glass beads of a light blue colour, square in shape and flat, with horizontal flutings.[15] Glass finger-rings have also been found, which were probably worn by women.

We have a few remains of Assyrian toilet articles. A bronze disk, about five inches in diameter, with a long handle attached, is thought to have been a mirror. In its general shape it resembles both the Egyptian and the classical mir-

[14] Layard, *Nineveh and Babylon*, p. 595.

[15] See the woodcut overleaf.

rors;[16] but, unlike them, it is perfectly plain, even the handle being a mere flat bar.[17] We have also a few combs. One of these is of iron, about three and a half inches long, by two inches broad in the middle. It is double, like a modern small-tooth comb, but does not present the feature, common in Egypt,[18] of a difference in the size of the teeth on the two sides. The very ancient use of this toilet article in Mesopotamia is evidenced by the fact, already noticed,[19] that it was one of the original hieroglyphs, whence the later letters were derived. Another comb is of lapis-lazuli, and has only a single row of teeth. The small vases of alabaster or fine clay, and the small glass bottles which have been discovered in tolerable abundance,[20] were also in all probability intended chiefly for the toilet. They would hold the perfumed unguents which the Assyrians, like other Orientals,[21] were doubtless in the habit of using, and the dyes wherewith they sought to increase the beauty of the countenance.[22]



Necklace of flat beads (British Museum).

No doubt the luxury of the Assyrian women in these and other respects was great and excessive. They are not likely to have fallen short of their Jewish sisters either in the refinements or in the corruptions of civilisation. When then we hear of "the tinkling ornaments" of the Jewish women in Isaiah's

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[16] See Wilkinson's *Ancient Egyptians*, 1st Series, vol. iii. pp. 585, 586; and Smith's *Dictionary of Antiquities*, ad voc. SPECULUM, p. 1053, 2nd col.

[17] A handle of a mirror found by Mr. Layard at Nimrud was slightly ornamented (*Monuments*, 1st Series, Pl. 96, fig. 11).

[18] Wilkinson, 1st Series, vol. iii. p. 380.

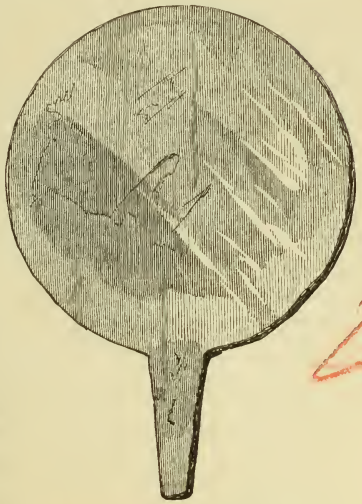
[19] Supra, p. 65.

[20] Supra, p. 390.

[21] As the Persians (Plin. *H. N.* xiii. 1), the Egyptians (Juv. xv. 50), the Parthians (Plin. *H. N.* xiii. 2), the Syrians (Athen. *Deipn.* xii. 35; Hor. ii. 7, l. 8), and the Jews (Eccl. ix. 8; Luke vii. 46, &c.).

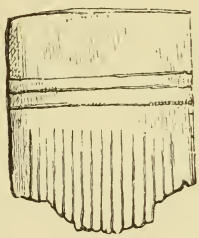
[22] Diod. Sic. ii. 23, § 1. In some of the bas-reliefs both the upper and the under eyelids are painted black. See above, p. 364; and compare Layard's *Monuments*, 1st Series, Pl. 92.

time, "their combs, and round tires like the moon," their "chains and bracelets and mufflers," their "bonnets, and ornaments of the legs, and head-bands, and tablets, and ear-rings," their "rings and nose-jewels," their "changeable suits of apparel, and mantles, and wimples, and crisping-pins," their "glasses, and fine linen, and hoods, and veils," their "sweet smells, and girdles, and well-set hair, and stomachers,"[1] we may be sure that in Assyria too these various refinements, or others similar to them, were in use, and consequently that the art of the toilet was tolerably well advanced under the second great Asiatic Empire. That the monuments contain little evidence on the point need not cause any surprise; since it is the



Metal mirror (British Museum).

Iron comb
(British Museum).



Fragment of comb in lapis-lazuli
(British Museum).

natural consequence of the spirit of jealous reserve, common to the Oriental nations, which makes them rarely either represent

[1] Isaiah iii. 18-24. It is not to be supposed that the words of the original in this passage are throughout correctly translated. Indeed the margin shows how doubtful many of them are. But there is no reason to question that they all represent different articles of the dress or toilet of women.

women in their mimetic art or speak of them in their public documents.[2]

If various kinds of grain were cultivated in Assyria, such as wheat, barley, sesame, and millet,[3] we may assume that the food of the inhabitants, like that of other agricultural nations, consisted in part of bread. Sesame was no doubt used, as it is at the present day, principally for making oil;[4] while wheat, barley, and millet were employed for food, and were made into cakes or loaves. The grain used, whatever it was, would be ground between two stones,[5] according to the universal Oriental practice even at the present day.[6] It would then be moistened with water, kneaded in a dish or bowl, and either rolled into thin cakes, or pressed by the hand into small balls or loaves.[7] Bread and cakes made in this way still form the chief food of the Arabs of these parts, who retain the habits of antiquity. Wheaten bread is generally eaten by preference;[8] but the poorer sort are compelled to be content with the coarse millet,[9] or *durra*, flour, which is made into cakes, and then eaten with milk, butter, oil, or the fat of animals.

Dates, the principal support of the inhabitants of Chaldæa, or Babylonia, both in ancient and in modern times,[10] were no doubt also an article of food in Assyria, though scarcely to any great extent. The date-palm does not bear well above the alluvium, and such fruit as it produces in the upper country is very little esteemed.[11] Olives were certainly cultivated under

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[2] See above, page 492.

[3] See supra, p. 216, note [6], and p. 566.

[4] Niebuhr, *Voyage en Arabie*, p. 295; Layard, *Nineveh and its Remains*, vol. ii. p. 423. For the ancient practice, compare Herod. i. 193, and Strab. xvi. 1, § 14.

[5] "Come down, sit in the dust, O virgin daughter of Babylon, sit on the ground . . . . Take the millstones, and grind meal." (Is. xlvii. 1, 2.)

[6] Layard, *Nin. and Bab.* pp. 285-287; Niebuhr, *Description de l'Arabie*, p. 45, &c.

[7] I doubt whether there is any representation of bread in the sculptures. The circular object on the table in the banquet-scene given below (p. 580) might represent a loaf, but it is more probably a sacred emblem. The Arab practice, which probably corresponds with the most ancient mode of preparing bread, is as given in the text. See Layard, l. s. c., and compare the article on BREAD, in Dr. Smith's *Biblical Dictionary*.

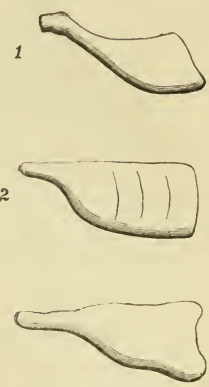
[8] Layard, p. 289.

[9] Niebuhr, *Description, &c.*, p. 45; Layard, *Nineveh and its Remains*, vol. i. p. 360.

[10] See above, p. 107.

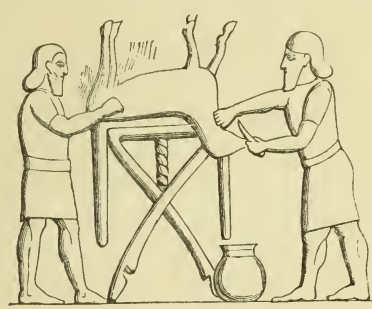
[11] Plin. *H. N.* xiii. 4.

the Empire,[12] and the oil extracted from them was in great request. Honey was abundant, and wine plentiful. Sennacherib called his land "a land of corn and wine, a land of bread and vineyards, a land of oil olive and of honey;"[13] and the products here enumerated were probably those which formed the chief sustenance of the bulk of the people.



Assyrian joints.
1. Shoulder. 2. Loin.
3. Leg.

Meat, which is never eaten to any great extent in the East,[14] was probably beyond the means of most persons. Soldiers, however, upon an expedition were able to obtain this dainty at the expense of others; and accordingly we find that on such occasions they freely indulged in it. We see them, after their victories, killing and cutting up sheep and oxen,[15] and then roasting the joints, which are not unlike our own, on the embers of a wood-fire.[16] In the representations of entrenched camps we are shown the mode in which animals were prepared for the royal dinner. They were placed upon their backs on a high table, with their heads hanging over its edge; one man held them steady in this position, while another, taking hold of the neck, cut the throat a little below the chin.[17] The blood dripped into a bowl or basin placed beneath the head on the ground. The animal


Killing the sheep (Koyunjik).

[12] 2 Kings xviii. 32. "A land of oil olive." When Herodotus denies the cultivation of the olive in his day (i. 193), as also that of the fig and the grape, he must refer to the low alluvial country, which is more properly Babylonia than Assyria.

[13] 2 Kings, l. s. c.

[14] "On mange peu de viande dans les pays chauds, où on les croit malsaines." (Niebuhr, p. 46.) "The common Bedouin can rarely get meat." (Layard, *Nin. and Bab.* p. 289.)

[15] Layard, *Monuments*, 1st Series, Pls. 75 and 76; 2nd Series, Pl. 36.

[16] Ibid. 2nd Series, Pls. 35 and 36.

[17] Ibid. Pl. 36.

was then, no doubt, paunched, after which it was placed—either whole, or in joints—in a huge pot or caldron, and, a fire being lighted underneath, it was boiled to such a point as suited the taste of the king. While the boiling progressed, some portions were perhaps fried on the fire below. Mutton appears to have been the favourite meat in the camp. At the court there would be a supply of venison, antelope's flesh, hares, partridges, and other game, varied perhaps occasionally with such delicacies as the flesh of the wild ox and the onager.

Cooking meat in caldron (Koyunjik).

Frying (Nimrud).

Fish must have been an article of food in Assyria, or the monuments would not have presented us with so many instances of fishermen.[18] Locusts were also eaten, and were accounted a delicacy, as is proved by their occurrence among the choice dainties of a banquet, which the royal attendants are represented in one bas-relief as bringing into the palace of the king.[19] Fruits, as was natural in so hot a climate, were highly prized; among those of most repute were pomegranates, grapes, citrons,[20] and, apparently, pineapples.[21]

There is reason to believe that the Assyrians drank wine very

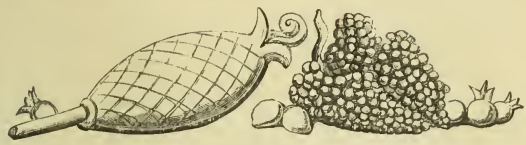
[18] See above, pp. 525, 526, and 527.

[19] Layard, *Monuments*, 2nd Series, Pls. 8 and 9; *Nin. and Bab.* p. 338. Mr. Layard notes that "the locust has ever been an article of food in the East, and is still sold in the markets of many towns in Arabia." He quotes Burckhardt (*Notes on the Bedouins*, p. 269) with respect to the way they are prepared. A recent traveller, who tasted them fried, observes that they are "like what one would suppose fried shrimps," and "by no means bad." (See Yule's *Mission to the Court of Ava*, p. 114.)

[20] Plin. *H. N.* xii. 3.

[21] The representation is so exact that I can scarcely doubt the pineapple being intended. Mr. Layard expresses himself on the point with some hesitation. (*Nin. and Bab.* p. 338.)

freely. The vine was cultivated extensively, in the neighbourhood of Nineveh and elsewhere;[1] and though there is no doubt that grapes were eaten, both raw and dried, still the main purpose of the vineyards was unquestionably the production of wine. Assyria was "a land of corn and wine," emphatically and before all else.[2] Great banquets seem to have been frequent at the court,[3] as at the courts of Babylon and Persia,[4] in which drinking was practised on a large scale. The Ninevites generally are reproached as drunkards by Nahum.[5] In the banquet-scenes of the sculptures, it is drinking and not eating that is represented. Attendants dip the wine-cups into a huge bowl or vase, which stands on the ground and reaches as high as a man's chest,[6] and carry them full of liquor to the guests, who straightway fall to a carouse.



Assyrian fruits. (From the Monuments.)

The arrangement of the banquets is curious. The guests, who are in one instance some forty or fifty in number,[7] instead of being received at a common table, are divided into messes of four, who sit together, two and two, facing each other, each mess having its own table and its own attendant. The guests are all clothed in the long tasseled gown, over which they wear the deeply fringed belt and cross-belt. They have sandals on their feet, and on their arms armlets and bracelets. They sit on high stools, from which their legs dangle; but in no case have they footstools, which would apparently have been a great convenience. Most of the guests are bearded men, but intermixed with them we see a few eunuchs.[8] Every guest holds in

[1] Supra, p. 567. [2] 2 Kings xviii. 32.

[3] Diod. Sic. ii. 20: Botta, *Monument*, Pls. 51 to 67, and 107 to 114.

[4] Dan. v. 1; Esther i. 3; Herod. ix. 110.

[5] Nahum, i. 10. "While they are drunken as drunkards, they shall be devoured, as stubble fully dry."

[6] This vase is represented p. 388.

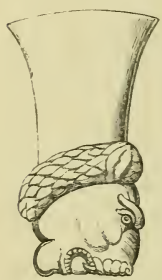
[7] Forty guests were still to be traced at the time of M. Botta's discoveries, while many slabs were even then so injured that their subject could not be made out. Along the line of wall occupied by the banqueting scene, there was ample room for twenty more guests.

[8] In M. Flandin's drawings this does not appear; but M. Botta is confident that it was so in the sculptures themselves (*Monument*, vol. v. p. 131).

his right hand a wine-cup of a most elegant shape, the lower part modelled into the form of a lion's head, from which the

Drinking scene (Khorsabad).

cup itself rises in a graceful curve. They all raise their cups to a level with their heads, and look as if they were either pledging each other, or else one and all drinking the same toast. Both the stools and the tables are handsome, and tastefully, though not very richly, ornamented. Each table is overspread with a table-cloth, which hangs down on either side opposite the guests, but does not cover the ends of the table, which are thus fully exposed to view. In their general make the tables exactly resemble that used in a banquet-scene by a king of a later date,[9] but their ornamentation is much less elaborate. On each of them appears to have been placed the enigmatical article of which mention has been already made as a strange object generally



Ornamental wine-cup (Khorsabad).

[9] See the representation, p. 493.

accompanying the king.[10] Alongside of it we see in most instances a sort of rude crescent.[11] These objects have probably, both of them, a sacred import, the crescent being the emblem of Sin, the Moon-God,[12] while the nameless article had some unknown religious use or meaning.

In the great banqueting scene at Khorsabad, from which the above description is chiefly taken, it is shown that the Assyrians, like the Egyptians and the Greeks in the heroic times,[13] had the entertainment of music at their grand feasts and drinking bouts. At one end of the long series of figures representing guests and attendants was a band of performers, at least three in number, two of whom certainly played upon the lyre.[14] The lyres were ten-stringed, of a square shape, and hung round the player's neck by a string or riband.

Attendant bringing flowers to a banquet (Koyunjik).

The Assyrians also resembled the Greeks and Romans[15] in introducing flowers into their feasts. We have no evidence that they wore garlands, or crowned themselves with chaplets of flowers, or scattered roses over their rooms; but still they appreciated the delightful adornment which flowers furnish. In the long train of attendants represented at Koyunjik as bringing the

[10] Supra, p. 494.

[11] M. Botta speaks as if the objects had been different on the different tables (*Monument*, vol. v. p. 131); but M. Flandin's drawings show scarcely any variety. The condition of the slabs was very bad, and the objects on the tables could scarcely ever be distinctly made out.

[12] See supra, p. 124, and vol. ii. p. 18.

[13] For the Egyptian practice, see Wilkinson's *Ancient Egyptians*, 1st Series, vol. ii. p. 222; for that of the Greeks, compare Hom. *Od.* i. 150-155; Athen. *Deipn.* xiv. 6, &c.

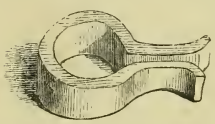
[14] One of these has been already represented, supra, p. 532. The figure of the third musician was so much injured that his instrument could not be made out. There was room for two or three more performers. (Botta, Pl. 67.)

[15] Athen. *Deipn.* xv. 10; Hor. *Od.* iii. 19, l. 22, i. 37, l. 15, Ov. *Fast.* v. 337, &c.

materials of a banquet into the palace of the king, a considerable number bear vases of flowers. These were probably placed on stands, like those which are often seen supporting jars,[16] and dispersed about the apartment in which the feast was held, but not put upon the tables.

We have no knowledge of the ordinary houses of the Assyrians other than that which we derive from the single representation which the sculptures furnish of a village certainly Assyrian.[17] It appears from this specimen that the houses were small, isolated from one another, and either flat-roofed, or else covered in with a dome or a high cone. They had no windows, but must have been lighted from the top, where, in some of the roofs, an aperture is discernible. The doorway was generally placed towards one end of the house; it was sometimes arched, but more often square-headed.

The doors in Assyrian houses were either single, as commonly with ourselves, or folding (*fores* or *valvæ*), as with the Greeks and Romans, and with the modern French and Italians. Folding-doors were the most common in palaces.[1] They were not hung upon hinges, like modern doors, but, like those of the classical nations,[2] turned upon pivots. At Khorsabad the pavement slabs in the doorways showed everywhere the holes in which these pivots had worked, while in no instance did the wall at the side present any trace of the insertion of a hinge.[3] Hinges, however, in the proper sense of the term, were not unknown to the Assyrians; for two massive bronze sockets found at Nimrud, which weighed more than six pounds each, and had a diameter of about five inches,[4] must have been designed to receive the hinges of a door or gate, hung exactly as gates are now hung among ourselves. The folding-doors were fastened by bolts, which were shot into the pavement at the point where the two doors met; but in the case



Socket of hinge (Nimrud).

[16] See pp. 387 and 536.

[17] See p. 322, where this village is represented.

[1] See Botta, *Monument de Ninive*, vols. i. and ii. passim.

[2] *Dict. of Greek and Roman Antiquities*, ad voc. CARDO.

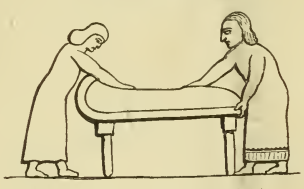
[3] Botta, vol. v. p. 45.

[4] Layard, *Nineveh and Babylon*, p. 163.

of single doors a lock seems to have been used, which was placed about four feet from the ground, and projected from the door itself, so that a recess had to be made in the wall behind the door, to receive the lock when the door stood open.[5] The bolt of the lock was of an oblong square shape, and was shot into the wall against which the door closed.[6]

The ordinary character of Assyrian furniture did not greatly differ from the furniture of modern times. That of the poorer classes was for the most part extremely plain, consisting probably of such tables, couches, and low stools as we see in the representations, which are so frequent, of the interiors of soldiers' tents.[7] In these the tables are generally of the cross-legged kind; the couches follow the pattern given in a previous page of this volume,[8] except that the legs do not end in pine-shaped ornaments; and the stools are either square blocks, or merely cut *en chevron*.[9] There are no chairs. The low stools evidently form the ordinary seats of the people, on which they sit to converse or to rest themselves. The couches seem to have been the beds whereon the soldiers slept, and it may be doubted if the Assyrians knew of any other. In the case of the monarch we have seen that the bedding consisted of a mattress, a large round pillow or cushion, and a coverlet;[10] but in these simple couches of the poor we observe only a mattress, the upper part of which is slightly raised and fitted into the curvature of the arm, so as to make a substitute for a pillow.

Assyrians seated on stools (Koyunjik).



Making the bed (Koyunjik).

[5] Botta, *Monument*, vol. ii. Pl. 136; and vol. v. p. 48.

[6] Ibid. vol. ii. Pl. 123.

[7] Supra, p. 465. Further examples will be found in Mr. Layard's *Monuments*, 1st Series, Pl. 77; 2nd Series, Pls. 24, 36, and 50; and in M. Botta's *Monument*, Pl. 146.

[8] Page 395.

[9] See the footstool, No. I., on the same page.

[10] Supra, p. 495.

Perhaps, however, the day-labourer may have enjoyed on a couch of this simple character slumbers sounder and more refreshing than Sardanapalus amid his comparative luxury.

The household utensils seen in combination with these simple articles of furniture are few and somewhat rudely shaped. A jug with a long neck, an angular handle, and a pointed bottom, is common: it usually hangs from a nail or hook inserted into the tent-pole. Vases and bowls of a simple form occur, but are less frequent. The men are seen with knives in their hands, and appear sometimes to be preparing food for their meals;[11] but the form of the knife is marked very indistinctly. Some of the household articles represented have a strange and unusual appearance. One is a sort of short ladder, but with semicircular projections at the bottom, the use of which is not apparent; another may be a board at which some game was played;[12] while a third is quite inexplicable.

Domestic utensils.

1. Vase. 2. Jug. 3. Bowl. 4 and 5. Unknown implements. 6. Board for playing a game (?).

From actual discoveries of the utensils themselves, we know

Dish handles (Nimrud).

that the Assyrians used dishes of stone, alabaster, and bronze. They had also bronze cups, bowls, and plates, often elaborately

[11] Layard, *Monuments*, 1st Series, Pl. 77; 2nd Series, Pls. 24 and 36.

[12] Compare the Egyptian boards, as represented in the author's *Herodotus*, vol. ii. pp. 276, 277, 2nd ed.

patterned.[13] The dishes were commonly made with a handle at the side, either fixed or moveable, by which, when not in use, they could be carried or hung on pegs. Caldrons of bronze were also common: they varied from five feet to eighteen inches in height, and from two feet and a half to six feet in diameter.[14] Jugs, funnels, ladles, and jars have been found in the same metal; one of the funnels is shaped nearly like a modern wine-strainer.[15]

Bronze ladle (Nimrud).

The Assyrians made use of bronze bells with iron tongues,[1] and, to render the sound of these more pleasing, they increased the proportion of the tin to the copper, raising it from ten to fourteen per cent. The bells were always of small size, never (so far as appears) exceeding three inches and a quarter in height, and two inches and a quarter in diameter. It is uncertain whether they were used, as modern bells, to summon attendants, or only attached, as we see them on the sculptures,[2] to the collars and headstalls of horses.

Some houses, but probably not very many, had gardens attached to them. The Assyrian taste in gardening was like that of the French. Trees of a similar character, or tall trees alternating with short ones, were planted in straight rows at an equal distance from one another, while straight paths and walks, meeting each other at right angles, traversed the grounds.[3] Water was abundantly supplied by means of canals drawn off from a neighbouring river, or was brought by an aqueduct from a distance.[4] A national taste of a peculiar kind, artificial and extravagant to a degree, caused the Assyrians to add to the cultivation of the natural ground the monstrous invention of "Hanging Gardens:" an invention introduced into Babylonia at a

Hanging garden (Koyunjik).

[13] See above, p. 368.
[14] Layard, *Nineveh and Babylon*, pp. 177-180.
[15] Ibid. p. 181.
[1] Ibid. p. 177. Compare also pp. 191 and 671.
[2] Supra, pp. 416 and 417.
[3] See the representation of a garden, p. 229.
[4] Compare p. 310.

comparatively late date, but known in Assyria as early as the time of Sennacherib.[5] A "hanging garden" was sometimes combined with an aqueduct, the banks of the stream which the aqueduct bore being planted with trees of different kinds.[6] At other times it occupied the roof of a building, probably raised for the purpose, and was supported upon a number of pillars.

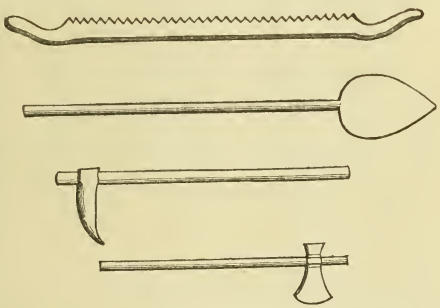
The employments of the Assyrians, which receive some illustration from the monuments, are, besides war and hunting—subjects already discussed at length—chiefly building, boating, and agriculture. Of agricultural labourers, there occur two or three only, introduced by the artist into a slab of Sennacherib's which represents the transport of a winged bull.[7] They are dressed in the ordinary short tunic and belt, and are employed in drawing water from a river by the help of hand-swipes for the purpose of irrigating their lands.[8] Boatmen are far more common. They are seen employed in the conveyance of masses of stone,[9] and of other materials for building,[10] ferrying men and horses across a river,[11] guiding their boat while a fisherman plies his craft from it,[12] assisting soldiers to pursue the enemy,[13] and the like. They wear the short tunic and belt, and sometimes have their hair encircled with a fillet. Of labourers, employed in work connected with building, the examples are numerous. In the long series of slabs representing the construction of some of Sennacherib's great works,[14] although the bulk of those employed

Assyrians drawing a hand-cart (Koyunjik).

[5] Layard, *Nineveh and Babylon*, pp. 232, 233.
[6] See p. 310.
[7] Layard, *Monuments*, 2nd Series, Pl. 15.
[8] A representation of a labourer thus employed, taken from the slab in question, has been already given, p. 215.
[9] See p. 338.
[10] Layard, *Monuments*, 2nd Series, Pl. 12.
[11] *Nin. and Bab.* p. 232.
[12] Ibid. p. 231.
[13] *Monuments*, 2nd Series, Pl. 27.
[14] Ibid. Pls. 10 to 17.

as labourers appear to be foreign captives, there are a certain number of the duties—duties less purely mechanical than the others—which are devolved on Assyrians. Assyrians load the hand-carts, and sometimes even draw them, convey the implements—pickaxes, saws, shovels, hatchets, beams, forks, coils of rope—place the rollers, arrange the lever and work it, keep the carved masses of stone steady as they are moved along to their proper places, urge on the gangs of forced labourers with sticks, and finally direct the whole of the proceedings by signals, which they give with their voice or with a long horn. Thus, however ample the command of naked human strength enjoyed by the Assyrian king, who had always at his absolute disposal the labour of many thousand captives, still there was in every great work much which could only be intrusted to Assyrians, who appear to have been employed largely in the grand constructions of their monarchs.

The implements of labour have a considerable resemblance to those in present use among ourselves. The saws were two-handed; but as the handle was in the same line with the blade, instead of being set at right angles to it, they must have been somewhat awkward to use. The shovels were heart-shaped, like those which Sir C. Fellows noticed in Asia Minor.[15] The pick-axes had a single instead of a double head, while the hatchets were double-headed, though here probably the second head was a mere knob intended to increase the force of the blow. The hand-carts were small and of very simple construction: they were made open in front and behind, but had a slight framework at the sides. They had a pole, rising a little in front, and were generally drawn



Assyrian implements. (From the Monuments.)

[15] *Journal written during an Excursion in Asia Minor*, p. 72.

by two men. The wheels were commonly four-spoked. When the load had been placed on the cart, it seems to have been in general secured by two bands or ropes, which were passed over it diagonally, so as to cross each other at the top.

Carts drawn by animals were no doubt used in the country; but they are not found except in the scenes representing the triumphant returns of armies, where it is more probable that the vehicles are foreign than Assyrian. They have poles—not shafts—and are drawn by two animals, either oxen, mules, or asses. The wheels have generally a large number of spokes—sometimes as many as eleven. Representations of these carts will be found in earlier pages.[16]

The Assyrians appear to have made occasional use of covered carriages. Several vehicles of this kind are represented on an obelisk in the British Museum. They have a high and clumsy body, which shows no window, and is placed on four disproportionately low wheels, which raise it only about a foot from the ground. In front of this body is a small driving-place, enclosed in trellis-work, inside which the coachman stands to drive. Each of these vehicles is drawn by two horses. It is probable that they were used to convey the ladies of the court; and they were therefore carefully closed, in order that no curious glance of passers-by might rest upon the charming inmates. The *carpentum*, in which the Roman matrons rode at the great public festivals, was similarly closed, both in front and behind, as is evident from the representations which we have of it on medals and tombs.

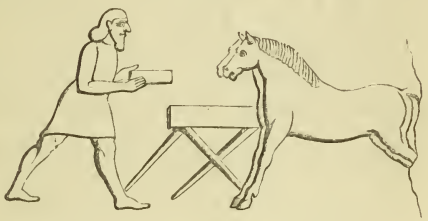
Assyrian close carriage or litter. (From an obelisk in the British Museum.)

Except in the case of these covered vehicles, and of the chariots used in war and hunting, horses (as already observed [1])

[16] Pp. 234 and 243.

[1] Supra, p. 233, note [7].

were not employed for draught. The Assyrians appear to have regarded them as too noble for this purpose, unless where the monarch and those near to him were concerned, for whose needs nothing was too precious. On the military expeditions the horses were carefully fed and tended. Portable mangers were taken with the army for their convenience; and their food, which was probably barley, was brought to them by grooms in sieves or shallow boxes, whence no doubt it was transferred to the mangers.



Groom feeding horses (Koyunjik).

They appear to have been allowed to go loose in the camp, without being either hobbled or picketed.[2] Care was taken to keep their coats clean and glossy by the use of the currycomb, which was probably of iron.[3]

Groom currycombing a horse.

Halters of two kinds were employed. Sometimes they consisted of a mere simple noose, which was placed in the horse's mouth, and then drawn tight round the chin.[4] More often (as in the above woodcut) the rope was attached to a headstall, not unlike that of an ordinary bridle, but simpler, and probably of a cheaper material. Leading reins, fastened to the bit of an ordinary bridle, were also common.[5]

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[2] See Layard, *Monuments*, 1st Series, Pl. 63; 2nd Series, Pls. 24 and 36.

[3] No currycomb has been found; but an iron comb, brought from Koyunjik, is now in the British Museum. (See above, p. 575.)

[4] Layard, *Monuments*, 2nd Series, Pls. 7 and 47.

[5] Ibid. Pls. 19, 24, 29, &c.

Such are the principal points connected with the peaceful customs of the Assyrians, on which the monuments recently discovered throw a tolerable amount of light. Much still remains in obscurity. It is not possible as yet, without drawing largely on the imagination, to portray in any completeness the private life even of the Assyrian nobles, much less that of the common people. All that can be done is to gather up the fragments which time has spared; to arrange them in something like order, and present them faithfully to the general reader, who, it is hoped, will feel a certain degree of interest in them severally, as matters of archæology, and who will probably further find that he obtains from them in combination a fair notion of the general character and condition of the race, of its mingled barbarism and civilisation, knowledge and ignorance, art and rudeness, luxury and simplicity of habits. The novelist and even the essayist may commendably eke out the scantiness of facts by a free indulgence in the wide field of supposition and conjecture; but the historian is not entitled to stray into this enchanted ground. He must be content to remain within the tame and narrow circle of established fact. Where his materials are abundant, he is entitled to draw graphic sketches of the general condition of a people; but where they are scanty, as in the present instance, he must be content to forego such pleasant pictures, in which the colouring and the filling-up would necessarily be derived, not from authentic data, but from his own fancy.

END OF VOL. I.

LONDON: PRINTED BY WILLIAM CLOWES AND SONS, STAMFORD STREET, AND CHARING CROSS.

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